

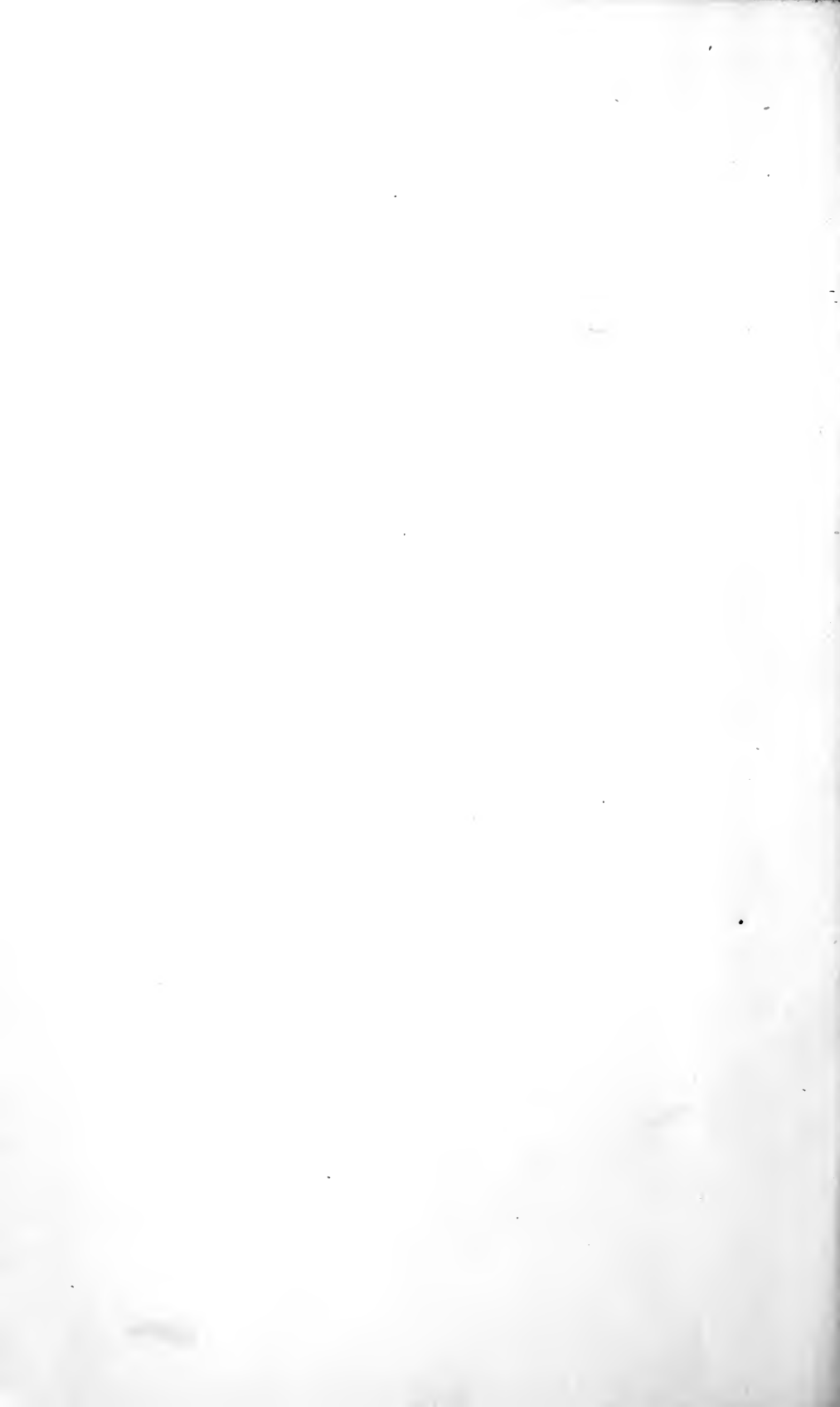


PHILURA GOULD BALDWIN
MEMORIAL LIBRARY









76th Congress }
3d Session }

SENATE COMMITTEE PRINT

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TEMPORARY NATIONAL ECONOMIC COMMITTEE

REPORTS MADE UNDER THE AUSPICES OF THE FEDERAL
TRADE COMMISSION FOR THE TEMPORARY NATIONAL
ECONOMIC COMMITTEE, SEVENTY-SIXTH CONGRESS,
THIRD SESSION, PURSUANT TO PUBLIC RESOLUTION
NO. 113 (SEVENTY-FIFTH CONGRESS), AUTHORIZING
AND DIRECTING A SELECT COMMITTEE TO MAKE A
FULL AND COMPLETE STUDY AND INVESTIGATION
WITH RESPECT TO THE CONCENTRATION OF ECONOMIC
POWER IN, AND FINANCIAL CONTROL OVER,
PRODUCTION AND DISTRIBUTION
OF GOODS AND SERVICES

MONOGRAPH No. 36

REPORTS OF THE FEDERAL TRADE COMMISSION

ON

NATURAL GAS AND NATURAL GAS PIPE LINES IN U. S. A.
AGRICULTURAL IMPLEMENT AND MACHINERY INQUIRY
MOTOR VEHICLE INDUSTRY INQUIRY

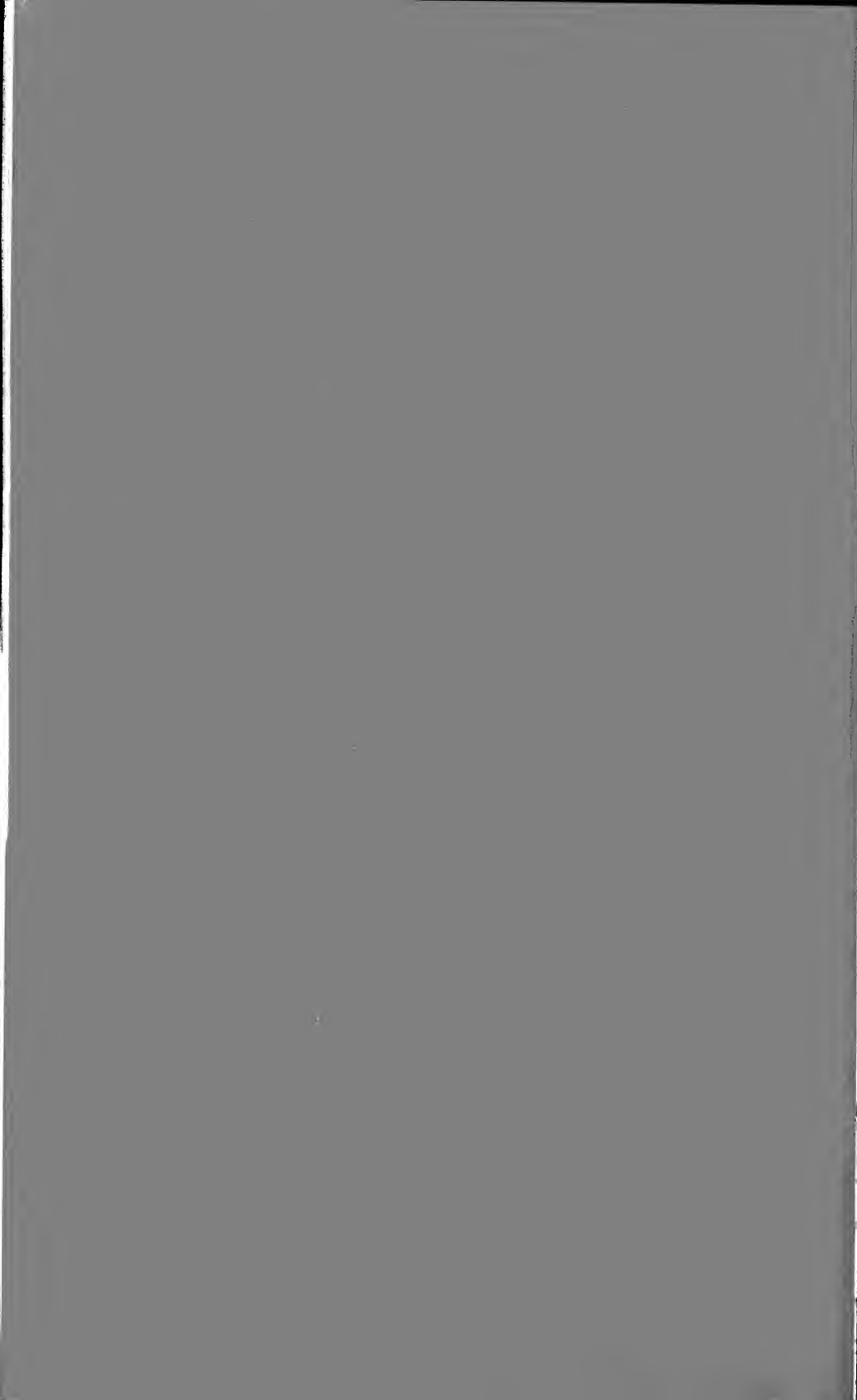
Printed for the use of the
Temporary National Economic Committee



LIBRARY

BALDWIN-WALLACE COLLEGE

BEREA, OHIO



INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TEMPORARY NATIONAL ECONOMIC COMMITTEE

REPORTS MADE UNDER THE AUSPICES OF THE FEDERAL
TRADE COMMISSION FOR THE TEMPORARY NATIONAL
ECONOMIC COMMITTEE, SEVENTY-SIXTH CONGRESS,
THIRD SESSION, PURSUANT TO PUBLIC RESOLUTION
NO. 113 (SEVENTY-FIFTH CONGRESS), AUTHORIZING
AND DIRECTING A SELECT COMMITTEE TO MAKE A
FULL AND COMPLETE STUDY AND INVESTIGATION
WITH RESPECT TO THE CONCENTRATION OF ECONOMIC
POWER IN, AND FINANCIAL CONTROL OVER,
PRODUCTION AND DISTRIBUTION
OF GOODS AND SERVICES

MONOGRAPH No. 36

REPORTS OF THE

FEDERAL TRADE COMMISSION

ON

NATURAL GAS AND NATURAL GAS PIPE LINES IN U. S. A.

AGRICULTURAL IMPLEMENT AND MACHINERY INQUIRY

MOTOR VEHICLE INDUSTRY INQUIRY

Printed for the use of the
Temporary National Economic Committee

LIBRARY
 EDWIN-WALLACE COLLEGE
BEREA, OHIO

TEMPORARY NATIONAL ECONOMIC COMMITTEE

(Created pursuant to Public Res. 113, 75th Cong.)

JOSEPH C. O'MAHONEY, Senator from Wyoming, Chairman
HATTON W. SUMNERS, Representative from Texas, Vice Chairman
WILLIAM H. KING, Senator from Utah
WALLACE H. WHITE, Jr., Senator from Maine
CLYDE WILLIAMS, Representative from Missouri
B. CARROLL REECE, Representative from Tennessee
THURMAN W. ARNOLD, Assistant Attorney General
*WENDELL BERGE, Special Assistant to the Attorney General
Representing the Department of Justice
JEROME N. FRANK, Chairman
*SUMNER T. PIKE, Commissioner
Representing the Securities and Exchange Commission
GARLAND. S. FERGUSON, Commissioner
*EWIN L. DAVIS, Chairman
Representing the Federal Trade Commission
ISADOR LUBIN, Commissioner of Labor Statistics
*A. FORD HINRICHS, Chief Economist, Bureau of Labor Statistics
Representing the Department of Labor
JOSEPH J. O'CONNELL, Jr., Special Assistant to the General Counsel
*CHARLES L. KADES, Special Assistant to the General Counsel
Representing the Department of the Treasury
Representing the Department of Commerce
* * *
LEON HENDERSON, Economic Coordinator
DEWEY ANDERSON, Executive Secretary
THEODORE J. KREPS, Economic Adviser

*Alternates.

MONOGRAPH No. 36

REPORTS OF THE FEDERAL TRADE COMMISSION

338.2

U 597

U.S. F.T.C.

ACKNOWLEDGMENT

The Temporary National Economic Committee is greatly indebted to the Federal Trade Commission for these contributions to the literature of the subjects under review.

The status of the materials in this volume is precisely the same as that of other carefully prepared testimony when given by individual witnesses; it is information submitted for Committee deliberation. No matter what the official capacity of the witness or author may be, the publication of his testimony, report, or monograph by the Committee in no way signifies nor implies assent to, or approval of, any of the facts, opinions, or recommendations, nor acceptance thereof in whole or in part by the members of the Temporary National Economic Committee, individually or collectively. Sole and undivided responsibility for every statement in such testimony, reports, or monographs rests entirely upon the respective authors.

(Signed) JOSEPH C. O'MAHERNEY,
Chairman, Temporary National Economic Committee.

III

Rec'd. 12-14-46 Econ. 135

TABLE OF CONTENTS

PART I

REPORT ON NATURAL GAS AND NATURAL GAS PIPE LINES IN THE U. S. A.

	Page
Letter of transmittal.....	XI
Introductory.....	3
Importance of natural gas as a natural resource.....	3
Prosperity of the Nation depends on natural resources.....	4
General outline of the report.....	5
Size and importance of the natural-gas industry.....	6
Importance of natural gas as an industry.....	6
Natural-gas reserves.....	6
Pipe line only method of transportation.....	7
Increase in national aspect of the gas pipe line industry.....	8
Some problems of regulation.....	9
Provision for Federal regulation of gas pipe lines.....	10
Concentration of control of natural-gas pipe line mileage.....	11
Some important basic considerations relative to the natural-gas industry.....	12
Basis of commercial value of natural gas.....	12
Conditions of recovery from ground governed by conditions demanded at ultimate consumption points.....	13
Well or field prices of natural gas.....	14
Competitive position of natural gas with bituminous coal.....	15
Transportation of natural gas in pipe lines.....	17
Marketing of natural gas determines the scope and conduct of the gas industry.....	19
Influence of important financial groups in the natural-gas industry....	22
Ownership by large industrial and utility interests.....	27
Interlockings of officers, directors, and personnel.....	29
Control of the pipe lines and gas supply (east of the Rockies).....	29
Efforts of independents to enter the natural gas transportation field....	30
Nonraiding policies.....	30
Transportation and sale of natural gas affected with a public interest....	31
Prices and price spreads.....	33
Purchasing policies.....	33
Well prices.....	35
City gate prices.....	38
Contract prices for natural gas deliveries from pipe lines.....	38
Prices to ultimate consumers.....	41
United Gas Public Service Co.....	42
Kansas City Gas Co.....	42
Pennsylvania and New York.....	43
Williamsport, Pa., and Saginaw, Mich.....	43
Texas towns.....	43
Pipe-line profits.....	44
Important features of particular gas pipe lines.....	44
Natural Gas Pipe Line Co. of America.....	44
Northern Natural Gas Co.....	47
Colorado Interstate Gas Co.....	48
Lone Star Gas Corporation.....	49
Mississippi River Fuel Co.....	50
Southern Natural Gas Corporation.....	52
Connecting Gas Co.....	53

	Page
Spreads in natural gas average or class prices as indicators of control.....	56
Monopolistic acts and practices.....	57
St. Louis, Mo.....	59
Fulton, Mo.....	63
Detroit, Mich.....	64
Cincinnati, Ohio.....	66
Colorado Springs, Colo.....	67
Other cities.....	68
Efforts of natural-gas producers to obtain outlets and markets.....	69
Hugoton producers.....	69
Treatment of individual well owners.....	69
Royalty contracts.....	70
Opposition of dominant interests to independent natural-gas pipe lines.....	71
The Missouri-Kansas-Panhandle Eastern.....	71
The Moody-Seagraves projects.....	74
The Kentucky-Detroit line.....	74
Omaha, Nebraska line.....	77
Wastage of natural gas.....	80
Ways in which natural gas is wasted.....	80
Extent of wastage.....	82
Other specific monopolistic evils and practices.....	83
Efforts by States to regulate the natural-gas industry.....	84

PART II

REPORT ON AGRICULTURAL IMPLEMENT AND MACHINE INQUIRY

Agricultural implement and machine industry.....	225
Beginning of the industry.....	225
Sources of information.....	225
Conditions of agriculture.....	226
Organization of the industry.....	227
Concentration of the industry.....	227
Absence of interlocking directors or common stockholders.....	228
Manufacturing plants and labor conditions.....	228
Wholesale distribution system.....	229
Retail sales system.....	230
Retail associations.....	231
Farm Equipment Institute.....	231
Prices in the industry.....	232
Recent price changes.....	233
Costs of typical farm implements and machines.....	234
Profits in the industry.....	236
The farmer's dollar.....	236
General conclusions.....	237
Memorandum concerning indications of compliance on the part of large manufacturers in the agricultural implement industry, with recommendations made by the Federal Trade Commission in an effort to eliminate undesirable trade practices with resulting benefits to the public * * *	250
Conclusions of the Commission with respect to concentration and full-line forcing.....	250
Corrective measures taken by leading companies.....	252
Other trade practice reforms.....	255
Prices of agricultural implements.....	256
Prices of farm products and certain manufacturing products.....	256
Increase in farm implement and machine prices from 1933 to 1938.....	256
Price reductions for agricultural implements following publication of the Commission's report.....	257

PART III

REPORT ON MOTOR VEHICLE INDUSTRY INQUIRY

	Page
Memorandum concerning indications of compliance on the part of large manufacturers in the motor vehicle industries, with recommendations made by the Federal Trade Commission in an effort to eliminate undesirable trade practices with resulting benefits to the public.....	261
Conclusions of the Commission.....	261
Concentration in the motor-vehicle industry.....	261
Competition in production and prices.....	262
Competition among motor-vehicle dealers.....	262
"Padding" new- and used-car prices.....	262
Dealer price-fixing activities.....	263
Legal aspects of used-car valuation or appraisal bureaus.....	263
Unfair methods of motor-vehicle manufacturers in their relations with their dealers.....	263
Manufacturers' treatment of dealers.....	263
Abuses of installment financing.....	264
Itemized invoice needed for consumer protection.....	264
Deception in charges for transportation of motor vehicles.....	264
Sale of driven cars as new cars.....	264
Voluntary improvements made by the manufacturers.....	264
Abuses in finance charges.....	266
Greater accuracy in price advertising.....	267
Manufacturer-dealer contracts.....	267

SCHEDULE OF TABLES AND EXHIBITS

PART I

TABLES

1. Natural gas produced in the United States in 1937, percents of United States total, average value at the wells, by States.....	Page 36
2. Contract prices for natural gas deliveries from pipe lines.....	39
3. Estimated waste of natural gas in the United States.....	82

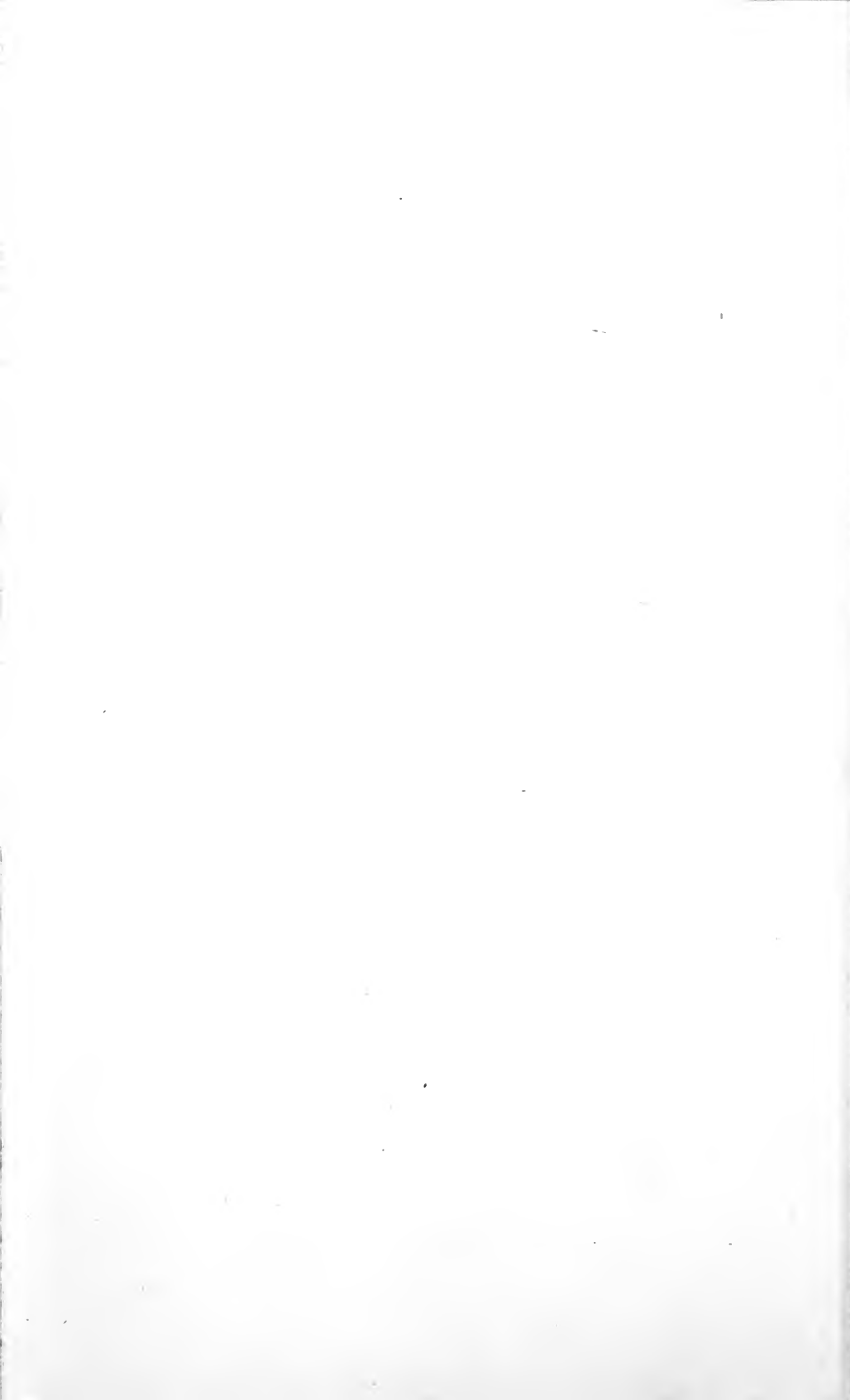
EXHIBITS

1. Historical outline of the natural gas industry in the United States.....	85
2. Map showing principal natural gas pipe line systems in the United States.....	faces p. 89
3. Intercorporate holdings of voting stock by the John D. Rockefeller and J. P. Morgan and connected interests in companies having substantial holdings in the natural gas and natural gas pipe line industries of the United States, as of January 1, 1939.....	faces p. 89
4. Shares and percents of voting stock held by the John D. Rockefeller interests in oil companies which are also engaged in the natural gas and natural gas pipe line industries, as of January 1, 1939.....	90
5. Percents of total voting stock held by the Morgan and associated interests in electric power and oil companies which are also engaged in the natural gas and the natural gas pipe line industries, as of January 1, 1939.....	91
6. Intercorporate holdings of voting stock by the Rockefeller and the so-called Morgan interests in companies engaged in the natural gas and natural gas pipe line industries of the United States, and holdings of other interests associated in these enterprises, as of January 1939.....	91
7. Principal stockholders in companies affiliated with the Morgan interests.....	92
8. Percentage of voting stock, as shown on exhibit 3, in other natural gas and natural gas pipe line companies.....	94
9. The quantity of natural gas produced, the quantity purchased, and the quantity transported across State lines, by companies controlled by the Rockefeller interests, the so-called Morgan interests, and by other interests associated with them, together with their natural gas trunk line mileage and percentages of the United States totals, 1934.....	99
10. Comparative prices paid and received during 1934—unless otherwise stated—showing widespread and inconsistent relationships to cost and distance transported and variations, dependent upon classes of customers to whom the gas is to be resold.....	101
11. Summary of operating data pertaining to 11 natural gas pipe line systems controlled by Columbia Gas & Electric Corporation, Standard Oil Co. (New Jersey), Cities Service Co., and Electric Bond & Share Co.....	104
12. Federal Power Commission release No. 723 (G-69), re petition of Colorado-Wyoming Gas Co. to Wyoming Public Service Commission.....	106
13. The Natural Gas Monopoly, published by the Cities Alliance, Detroit, Mich.....	107
14. Richest Market for Natural Gas Awaits Pipe Line Builders, by H. Stanley Norman.....	209
15. Production of electric energy (kilowatt-hours) by companies controlled by or affiliated with the Morgan interests, 1934 and 1938....	213
16. Letter from Texas Railroad Commission re drilling permits granted and producers brought in in Texas in 1938.....	214
17. State and Federal regulations of gas and electric utilities.....	215

PART II

TABLES

1. Number of manufacturers of certain farm implements and machines in 1926, 1936, and 1937-----	239
2. Percentages of the total number of representative farm implements and machines sold for use in the United States for each of the years 1921, 1929, 1935, 1936, and percentages of the numbers and values in 1937, for specified companies-----	241
3. Proportion of the total number of representative agricultural implements and machines sold in the United States by International Harvester Co-----	245
4. Proportion of total number of representative farm implements or machines manufactured by the 8 full- or long-line manufacturers, for the census years 1921, 1929, 1935, 1936, and 1937-----	246
5. International Harvester Co. price comparisons, 1938 and 1939-----	248
6. Comparison of 1938 and 1939 dealer prices for combines, for Deere & Co-----	249
7. Proportion of the number of 28 important groups of farm implements and machines sold in the United States in 1937 (or 1936 for those marked “*”) for the 8 leading manufacturers-----	251



LETTER OF TRANSMITTAL

FEDERAL TRADE COMMISSION,
Washington, September 18, 1940.

Dr. H. DEWEY ANDERSON,
*Executive Secretary to the Temporary National Economic Committee,
Federal Trade Commission Building, Washington, D. C.*

DEAR DR. ANDERSON: I am transmitting herewith for consideration by the Temporary National Economic Committee a report on natural gas and natural gas pipe lines, and a report which consists of a summary of the Commission's investigation of the farm machinery industry, with a supplementary memorandum showing the effect of the Commission's study in causing the farm machinery industry to revise a number of its practices. I am also enclosing a memorandum concerning indications of compliance on the part of large manufacturers in the motor vehicle industry with recommendations made by the Federal Trade Commission in an effort to eliminate undesirable trade practices.

These reports have been read and approved by the Federal Trade Commission, and the Commission has instructed me to send them to you for consideration by the Committee.

Very truly yours,

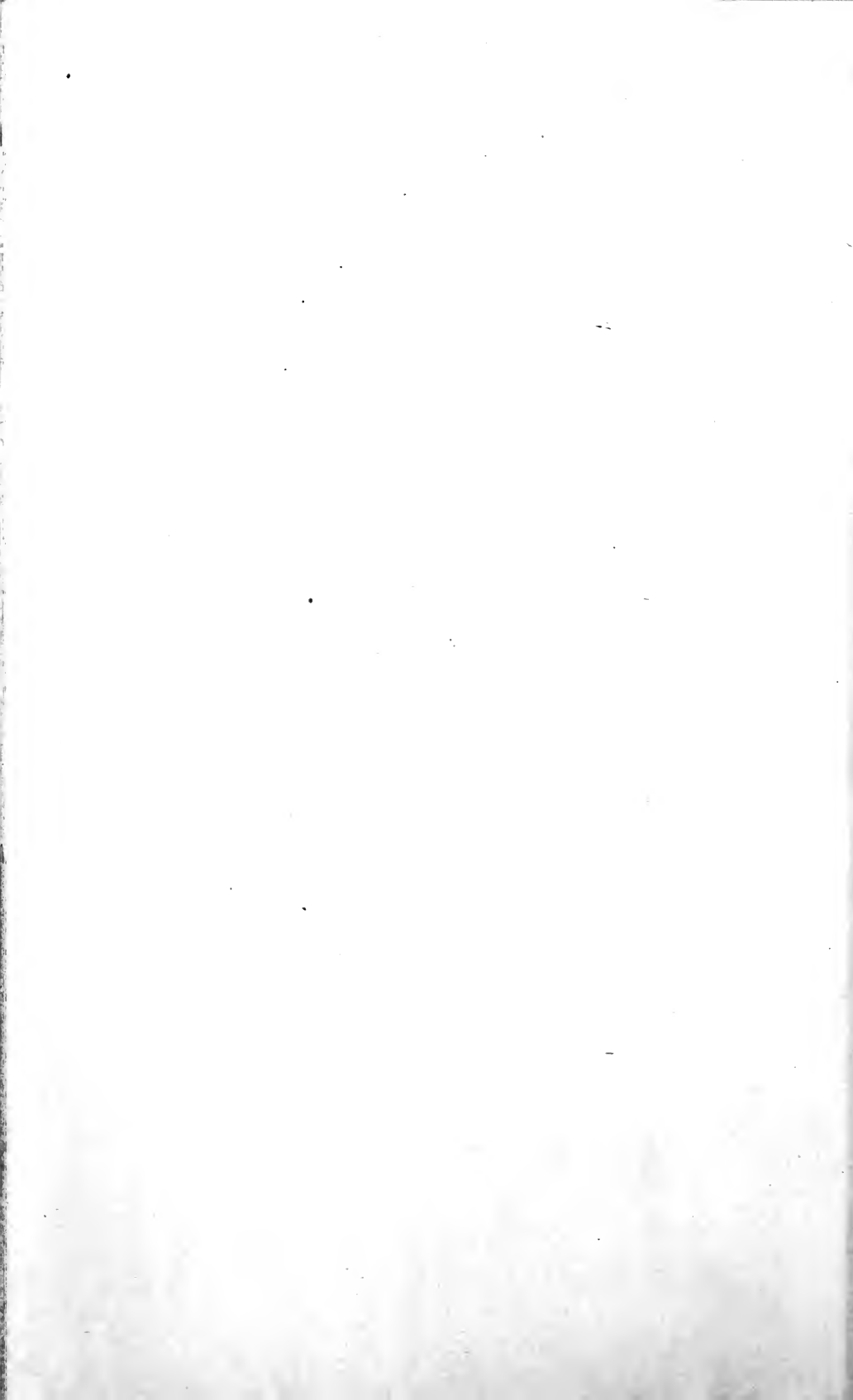
WILLIS J. BALLINGER,
Director of T. N. E. C. Studies for the Federal Trade Commission.

XI

LIBRARY
BALDWIN-WALLACE COLLEGE
BEREA, OHIO

PART I

**REPORT ON NATURAL GAS AND NATURAL GAS
PIPE LINES IN THE UNITED STATES OF AMERICA**



INTRODUCTORY

Among industry's first requisites, in peace or war, are heat and motive energies. Without them, not only industry but our modern commercial and life stream stops dead. There is probably general agreement that the four principal natural energy sources in the United States are falling water, coal, natural gas, and petroleum. Energy wholly derived from these natural sources is widely distributed for use as electric power, constituting in effect a fifth source of mass energy distributed to the public. It is assumed that this committee is deeply interested as to each of these where any situation is either Nation-wide or affects substantial use areas or bodies of consumers, especially where dominance or power to influence policy appears to be concentrated in a few hands or interests; and that the committee wants to know whether any interlocking ownership or overlapping of control or interest or affiliation appears, either by holdings or personnel, by which policy may be controlled or influenced, in more than one of these energy sources.

In the period 1934-35 the Federal Trade Commission conducted a quite extensive investigation of the corporations engaged in the interstate transmission and sale of natural gas. Through the investigations of its engineers, accountants, economists, legal staff, by testimony of many persons and reports from the corporations sworn to by their officers, it acquired a wide intimate knowledge of the facilities employed, operating problems, services rendered, financial transactions, and interrelations of the various interests concerned in the development and other activities of the industry.

Since the close of that investigation, the Commission has had less direct contact with the industry, but has obtained for the preparation of this report some additional information of continuing developments, especially as to interrelationships, and the present status. There also have been available for this study, pertinent material in the reports to the Securities and Exchange Commission, reports to the Federal Power Commission, and, very importantly (as to volumes of production and consumption, field conditions, at-well and ultimate consumption values), the annual compilations of United States Bureau of Mines in the natural gas chapters of its Minerals Yearbooks and in the annual volumes of Poor's and of Moody's.

As this committee well knows, the corporate relationships in the petroleum and natural-gas industries are continually changing. However, it appears that not sufficient changes have taken place since the findings of the Federal Trade Commission at the close of 1935 to affect greatly the findings and conclusion there made.

IMPORTANCE OF NATURAL GAS AS A NATURAL RESOURCE

Natural gas output for many years exceeded that of the entire electric industry as an effective energy source, and potentially it pro-

vides nearly six times as much.¹ It is a physical fact that the larger supply sources of natural gas in the United States are quite distant and across several or many State lines from the large use areas. This is particularly true in the Southwest where the distance is as much as a thousand miles from some of its markets. Pipe lines afford the only present means of transporting natural gas from the producing wells to such use areas. Moreover, natural gas cannot ordinarily be stored economically at or near consumer's premises in sufficient quantities but must move continuously as demanded from the gas field to points of consumption. Add to the foregoing, the fact that most of the few corporations dominant in natural gas pipe line companies also bulk large in one or more of the competitive energy sources of coal, electric current, and petroleum and it is clear why the story of natural gas and its transportation by pipe lines has a very definite and important place in the studies of this committee.

The present annual interstate movement of natural gas is approximately 700 billion cubic feet (Bureau of Mines Minerals Yearbook, 1939, natural gas chapter, pp. 32-35), and this quantity represents in potential energy nearly double the total production of electric energy for all purposes in the United States. The proportion of electric energy transferred across State lines in recent years has been slightly under 20 percent of the total annual production.² Thus 10 times as much potential energy was moved interstate in the form of natural gas as was moved interstate as electric current. The volume of interstate movement of natural gas has shown a steady increase to 1937 when the 700 billion cubic feet, which moved interstate, amounted to 29 percent of the marketed production.

The annual productions of natural gas, petroleum, and electric power have increased in substantially the same proportion during the period 1920-37. During this same period the total production of coal (bituminous and anthracite) declined about 25 percent. In 1920 the coal energy marketed was 20 times that of natural gas, by 1937 it was only slightly more than 5 times the natural gas total, due to actual increases in the total volumes of natural gas marketed and actual declines in the total tonnage of coal produced.

PROSPERITY OF THE NATION DEPENDS ON NATURAL RESOURCES

The origin of most wealth is in natural resources, including products grown from the soil. Much of these natural resources occur at long and variable distances from the principal use areas. All require extensive distribution in a country as large as the United States. When the same interests control much of a resource and also of its only transport for distribution, their position becomes one of double dominance.

The idea was long generally held that our natural resources were no concern of the general public and that these rich accumulations of geological ages at once became the full private property of those who took possession of the surface of the land. A certain consciousness

¹ " * * of heat energy the total consumption of natural gas for the year 1937, which is the latest year for which the statistics are now available, amounted to about 2,500 trillions of British thermal units. This is about six times the entire electrical energy generated and purchased in the country and imported during the same period. This comparison takes no account of the manufactured gas sold during the year." (Gas Age, January 19, 1939, p. 42. By Thomas R. Weymouth, vice president, Columbia Gas & Electric Corporation and present year chairman of the natural gas section of American Gas Association.)

² Federal Power Commission monthly reports on production of electric power for public use.

finally dawned on some few in the United States that its natural resources are not illimitable and inexhaustible. Among them was President Theodore Roosevelt who on May 13, 1908, said to a conference of Governors called by him (Conference of the Governors, Government Printing Office, 1909).

This conference on the conservation of natural resources is * * * to consider the weightiest problem now before the Nation (p. 3);

and

In the development, the use, and therefore the exhaustion of certain of the natural resources, the progress has been more rapid in the past century and a quarter than during all preceding time of which we have record (p. 4);

and also

We have thoughtlessly and to a large degree unnecessarily, diminished the resources upon which not only our prosperity but the prosperity of our children and our children's children must always depend (p. 8);

and in conclusion

Finally, let us remember that the conservation of our natural resources, though the gravest problem of today, is yet but a part of a greater problem to which this Nation is not awake, but to which it will awake in time, and with which it must hereafter grapple if it is to live—the problem of national efficiency, the patriotic duty of insuring the safety and continuance of the Nation (p. 12).

Due to the limited recognition of the true situation and the rapid expansion of the natural gas industry that has occurred since 1925, it is not surprising that no sufficient nor effective steps were taken by anyone on behalf of the public to limit or regulate the concentration of control of natural gas as a resource or of its only means of transportation to the places of use.

This report will present situations and factors, following or arising out of such concentration of control, some of which clearly run counter to the public interest.

The Federal Trade Commission devoted its final report (Utility Corporations, S. Doc. 92, pt. 84-A, 70th Cong., 1st sess., December 31, 1935) on its utilities investigation chiefly to natural gas and natural gas pipe lines (the electrical industry had been covered in an earlier report).

A word as to the Commission's record: Copies of all examiners' reports put into the record in that investigation were turned over to the companies for checking as to facts, and were then conferred on with representatives of each company so that the facts are not in controversy. Conclusions stated are those of the Commission or of the experts of its staff. All testimony was under oath, and ample opportunity to explain or refute was granted.

GENERAL OUTLINE OF THE REPORT

First is presented a general statement as to the size, importance, recent and rapid growth of the industry, particularly of the pipe lines. Next, is discussed the control of the pipe line mileage in the United States, which is largely in the hands of groups and concerns interested in competitive sources of power and energy, namely, electricity and oil. This discussion will indicate that in the natural gas pipe line situation four groups are dominant.

SIZE AND IMPORTANCE OF THE NATURAL GAS INDUSTRY

IMPORTANCE OF NATURAL GAS AS AN INDUSTRY

Viewing it from one angle, many speak of the present as the electrical age. Comparatively few are aware that, potentially, marketed natural gas as a source of heat and energy is several times greater than our present electric output. Moreover, natural gas in many localities should be a cheap source of such energy. Although it must be taken from the earth where found and transported to where it can be usefully consumed often at considerable distances, such transport is comparatively cheap.

In other fields than the Appalachian districts, the well-head prices at which gas is generally sold are below common mine mouth prices of coal on an equivalent heat yield basis. In mass transportation by large pipe lines, full costs of transportation under good load factors are generally closely comparable with railroad freight rates on coal. For some uses it has a special superiority.

Figures from the Bureau of Mines for 1937 show a marketed production of natural gas in the United States of 2,407,620,000 M cubic feet (Bureau of Mines, Minerals Yearbook, 1939, natural gas chapter, p. 2). One M cubic feet of natural gas (at an average of 1,000 B. t. u. per cubic foot under standard conditions) is equivalent in theoretical energy to 300 kilowatt-hours of electricity. This means that the 2 billion plus M cubic feet of natural gas marketed in 1937 equals theoretically 722 billion plus kilowatt-hours of electric energy. Rating gas as utilized at present at 40 percent in efficiency as compared to electricity, this gas represents an actual energy source equivalent to 289 billion plus kilowatt-hours. Electrical sales to ultimate consumers for 1937, as stated by the Edison Electric Institute, were just over 99 billion kilowatt-hours, or the natural gas marketed in 1937 was the source of nearly three times as much efficient energy as was provided by the entire electrical industry in the United States.

NATURAL GAS RESERVES

As in all underground natural resources, there is a wide variation in estimates of natural gas reserves in the United States. A recent statement of such estimates appears in report on "Energy Resources and National Policy," National Resources Committee, January 1939, pages 130, 131, 133, 137-138, 295. Estimates have varied from 30 trillion cubic feet made, in October 1931, by H. O. Caster, president of the American Gas Association in that year, to 66 trillion cubic feet, in April 1938, by Ralph E. Davis, a natural gas engineer. Of this 66 trillion cubic feet the Appalachian area had 6 trillion or 9 percent and the midcontinent and Gulf coast which includes Louisiana had 51 trillion or 77.27 percent. Still more specifically, the Texas Panhandle with 16 trillion cubic feet and the adjacent Hugoton Kansas field with 14.25 trillion cubic feet, comprise in that area of something

over 2,000,000 acres nearly one-half the present known natural gas reserves of the United States (131, 137-138). As of October 1938, Ralph W. Richards, of the United States Geological Survey, estimated the natural gas reserves at 100 trillion cubic feet. The difference between the estimates of Davis and Richards is said to be due largely to the discovery of important reservoirs in the California and Rocky Mountain area, which have occurred at such a rate that the National Resources Committee concludes:

On the whole, these estimates indicate that natural gas, as well as crude oil, is being discovered more rapidly than it is being consumed (130-131).

The life of these reserves, of course, depends on the rate of withdrawals. The withdrawals or production in 1938 was 2,363 billion cubic feet. This figure does not include billions of cubic feet wasted into the air. At this rate the 66 trillion cubic feet, as estimated by Davis, would be exhausted in about 28 years or the 100 trillion, as estimated by Richards, would last about 42 years. The annual rate of production, however, has been steadily increasing from year to year. During the 9-year period, 1930-38, production increased from 1,943,421 million cubic feet in 1930 to 2,263,000 million in 1938 or approximately 16.5 percent (Bureau of Mines, Minerals Yearbook, natural gas chapter, p. 2). There was a sharp decline in production in the years 1931-33. All methods of physical conservation will either tend to reduce this, or in that degree increase its amount of effectively utilized energy.

Because of the usual experience that gas fields have been located in the search for crude petroleum and that approximately one-half the natural gas reported as marketed by the United States Bureau of Mines has been obtained as a joint output of or byproduct from operation of oil wells, the inference is clear that the great crude petroleum producing corporations in controlling great reserves of oil naturally are controlling important reserves of natural gas.

It is assumed that the committee is informed as to the control of crude petroleum reserves.

PIPE LINE ONLY METHOD OF TRANSPORTATION

The only feasible transport for natural gas at present is by pipe lines and therefore it is apparent that control of the only method of making natural gas available for use where an economic demand exists for it, must be considered in connection with the natural resource itself. The trunk pipe lines are the bottlenecks of this resource and industry, and so the simplest way to control production is to control the means of transportation. Control of transportation makes possible control of prices both at the source and at the consuming end. There is no escape.

Dominance through control of transportation is simpler and has the possibility of being more complete in natural gas than in crude petroleum. This is so for the reason that natural gas can be transported by only the one method, namely, pipe lines. Moreover, natural gas is put at once and directly from the well mouth into gathering pipe lines and from there, except for a separation process as to undesirable vapors, dirt, etc., directly into the trunk lines and moved along therein on its journey for direct delivery to ultimate consumers, because storage of natural gas in quantities sufficient for any considerable time

supply is impracticable. Thus, it is clear that ready access to a constant, adequate, undiscriminating, and reasonably priced transport to the market is absolutely essential to those at the producing end to give such producers maximum opportunity to exploit their ownerships in this natural resource.

Whether this theoretically desirable condition can be practically realized in view of other factors of great importance can only be judged after a careful weighing of all those other factors.

INCREASE IN NATIONAL ASPECT OF THE GAS PIPE LINE INDUSTRY

Recent construction of long distance interstate gas pipe lines in the midcontinent area has focused attention upon the national aspect of this industry. The Commission's report to the Congress on the natural gas industry gives the following early listing of gas pipe lines (F. T. C. 84-A: 22):³

According to record, the first effort to transport natural gas for use commercially occurred in 1870, when a wooden pipe line was laid from West Bloomfield, N. Y., to Rochester, N. Y., a distance of 25 miles. Due to the poor lighting quality of the gas, this venture was a failure.

The first iron pipe line was laid in 1872, in the oil district about Titusville, Pa., which at that time was the principal producing area in the entire country. During the middle seventies gas was discovered in what is now known as the "midcontinent field." These early discoveries were largely in the eastern and southeastern parts of Kansas. There was, however, comparatively little market for gas in that section and there arose the necessity of transporting gas long distances to available markets.

The first long-distance high-pressure pipe line was built by the Indiana Natural Gas & Oil Co., in 1891, from northern Indiana to Chicago, a distance of 120 miles. It consisted of two 8-inch iron pipes, built to deliver gas at 525 pounds pressure.

The development of high-carbon, thin-walled steel pipes with tight joints that will hold without leakage for a long term of years and the perfection of equipment for recompressing gas in transit have made practical long-distance transportation. Labor-saving devices employed in the laying of the pipe lines have reduced the cost of construction to a point no longer prohibitive.

Some important interstate gas transportation existed previous to or about 1900, affecting such States as Illinois, West Virginia, Ohio, and Pennsylvania. Interstate movement of gas out of Kansas began about 1906. No satisfactory measures are at hand concerning volumes transported interstate in these early years.

In 1921, 150,000,000 M cubic feet of natural gas were transported for resale across State lines. About 65 percent of this gas was produced in and was moved out of West Virginia, chiefly into Ohio and Pennsylvania. The next largest movement of gas interstate in 1921 was from Oklahoma to Kansas. Interstate movement of gas out of Texas amounted to less than 3,000,000 M cubic feet or 2 percent of the total national interstate movement.

By 1930, the year of maximum production of natural gas until 1936, 380,601,000 M cubic feet were reported as moving interstate, with West Virginia still the largest exporter of natural gas closely followed by Louisiana and with Texas third with about 60 percent as much exported gas as either West Virginia or Louisiana.

In 1937, the latest year for which statistics are available, 687,428,000 M cubic feet, equal to 29 percent of the total marketed national production, moved interstate. Texas was first with 203,315,000 M cubic

³ Subsequent references written in this style refer to Federal Trade Commission reports on Utility Corporations, S. Doc. 92, 70th Cong., 1st sess.

feet, Louisiana second with 152,843,000 M cubic feet, and West Virginia third with 102,579,000 M cubic feet.

Assuming an average value of deliveries from the interstate pipe lines as approximately 25 cents per M cubic feet, the interstate movement of gas in 1937 approximated \$172,000,000 in value. At 30 cents per M cubic feet, the value would be about \$206,000,000. Much of this gas was resold to ultimate consumers by city and town gas utility distribution systems at retail prices ranging from 40 cents to nearly \$2 per M cubic feet—due to additional costs and profits involved in local distribution.

The United States Bureau of Mines estimates the value of the entire marketed product in 1937 at points of consumption as \$527,529,000. This amount, however, includes the revenue of approximately \$330,000,000 received from domestic and commercial consumers utilizing local distribution systems, of which \$330,000,000, something approximating (as a free estimate) one-half was due to charges superimposed on trunk pipe line delivered prices because of local distribution costs and profits. The total domestic and commercial consumption amounted to 489,234,000 M cubic feet, or 20 percent of the total marketed production of 2,407,620,000 M cubic feet. A considerable portion of this (the amounts not being deductible from the Bureau of Mines tabulations) must have been supplied wholly under intrastate production and delivery.

Of the total national marketed production of natural gas reported for the year 1937, 41 percent was utilized close to the areas of production. Excluding that portion of the marketed gas utilized in the fields and in carbon black plants, the gas transmitted interstate approximated nearly 50 percent of the remaining total marketed production, the balance being utilized under intrastate deliveries.

Today, except in New England and in certain of the South Atlantic States, and on the Northwest Pacific coastal area, practically every large industrial center and use area either has natural gas in use, or has a supply of it available at the city gate or it might be made available at reasonable investments for laterals or connecting pipe lines from not too distant trunk pipe lines if the latter had excess supply and capacity available and other conditions were favorable.

SOME PROBLEMS OF REGULATION

In numerous localities, mixtures of locally produced, either or both natural and manufactured gas and interstate transported natural gas are delivered to the general public. Wherever public authority has undertaken to determine reasonable and fair prices for the sale of such mixed gas under utility conditions, it has been confronted with the claim of the opposition that such public authority could not set the fair price at which the interstate gas should enter the system. Ownership thereof being free to set such interstate gas price at any desired level, nullification of efforts to establish fair rates by public authority was possible.

Evidence developed during the investigation of the Federal Trade Commission appears to justify a conclusion that at least one natural gas pipe line route was so chosen as to cross and recross a State line for the primary purpose of hindering local regulation. This instance was within the Cities Service System supplying Kansas City, Mo.

PROVISION FOR FEDERAL REGULATION OF GAS PIPE LINES

The findings and recommendations of the Federal Trade Commission reviewed and summarized in its final report to the Senate of the United States submitted under date of December 31, 1935 (S. Doc. 92, pt. 84-A), on various matters relating to the natural gas industries doubtless were important influences in the enactment of the Federal Natural Gas Act of 1938. The growing importance of the interstate transactions in natural gas may have been a factor also.

Thereunder the Federal Power Commission has already begun to function as a regulatory agency particularly in the matter of the establishment of possibly competing natural gas pipe lines⁴ and in the matter of fair and reasonable rates for natural gas transmitted from West Virginia and delivered to the East Ohio Gas Co. for further transmission to and final distribution in Cleveland and other communities in Ohio. The Federal Power Commission appears to have taken the position in one of the cases referred to that competition by a proposed new pipe line for the business of an area which can be adequately supplied by an existing pipe line and which entire business the existing pipe line may require in order to give through ample loading of its system the lowest cost service to the public may not be in the public interest.

Such an attitude of the Power Commission removes from the pipe line ownership the necessity of protecting itself by whatever means are at hand against alleged destructive competition through the transfer of such protective functions to a public body weighing all the interests involved.

⁴ Federal Power Commission's Opinion No. 39, Docket No. G-106 and G-119, dated October 24, 1939.

CONCENTRATION OF CONTROL OF NATURAL GAS PIPE LINE MILEAGE

One objective of this presentation is to show how closely controlled or harmonious are the dominant factors in this important natural resource industry. Therefore, just a little added discussion as to the manner in which such a gigantic primary energy source industry came to be so concentrated so quickly and so unnoticed.

This was accomplished by the then existing larger utility groups, usually in combination, or if by others, they soon came into the control of a few of such groups. All this occurred before any public awakening to what had happened, and before any general or effective legislation was enacted or steps taken under existing law effectively to check such concentration of control.

An important factor in the concentration of a large part of trunk pipe line mileage in a few company groups was the joint financing of long distance pipe line construction by large crude petroleum producing companies who owned large gas deposits and by large utility groups which distributed gas to consumers. The petroleum companies sought a market for their gas and the gas utility companies desired to retain control of gas distribution to ultimate consumers.

Another factor which probably aided substantially in bringing about unnoticed such rapid and close concentration was because of much direct financing through treasury funds of holding companies rather than by open market sales of securities.

With reference to the concentration of control of this major resource, natural gas, the Federal Trade Commission in its final report, dated December 31, 1935 (F. T. C. 84-A:28), showed that four groups controlled more than 55 percent of all the operated natural gas pipe line mileage in the United States. These were: Columbia Gas & Electric Corporation, with 12,760 miles; Cities Service Co., with 6,059 miles; Electric Bond & Share Co., with 5,331 miles; and Standard Oil Co. (New Jersey), with 4,843 miles.

The map opposite page 24 of the final report shows the ownership of the 60 most important natural gas pipe lines including all of the interstate lines, as of December 31, 1934.

From the points of origin of these pipe lines, it will be seen that practically all the natural gas which is transported to and is used as an energy or heat source in the larger use areas of the United States east of the Rockies, comes from three areas. By far the greater are the mid-continent and Gulf areas. These three areas are—

1. The Texas Panhandle or Amarillo field in northwest Texas and the nearby Hugoton field in southwest Kansas, which "comprise nearly half the known reserves of the entire United States";

2. The Texas and Gulf area, the northern Louisiana field, Monroe and Richland area with approximately one-quarter of the United States reserves;

3. The Appalachian area in the east with about 9 percent of the estimated total national natural gas reserves.

California also has important natural gas reserves but there is no interstate transmission of gas from that State.

It is obvious that long-distance interstate transportation to use areas is necessary for most of such gas.

There has been sketched so far certain data indicating the relative importance of the natural gas industry in the national economy, that gas trunk pipe lines are exclusively essential to the wide distribution of this resource to users, and that certain large industrial and public utility holding company groups have acquired ownership interests, sometimes jointly with other corporations, and exercise, or are in position to exercise, a predominating influence in the conduct of such pipe lines. In 1938 the Federal Natural Gas Act for the first time classed the interstate gas pipe line industry as in a utility status and established regulation thereof in certain particulars by the Federal Power Commission. That Commission already has handed down a decision, exhibiting its understanding of the law in the matter particularly of petitions for certificates of convenience and necessity presented by two proposed gas pipe line constructions and extensions which to some extent represent plans to serve communities lying within the potential territory of other pipe lines.⁵

At this place it may be suitable to sketch the underlying features of this industry, from which spring the practices which have developed problems requiring solution for the best public interest.

SOME IMPORTANT BASIC CONSIDERATIONS RELATIVE TO THE NATURAL GAS INDUSTRY

Perhaps no industry likely to be considered by the Temporary National Economic Committee is such a creature of circumstance and mixed interests, some of them seemingly entrenched by laws of long standing, in addition to those circumstances developing because of the need of employment of large investments, skillful and responsible management, of meeting geologic, geographical, and climatic conditions, as well as the peculiar characteristics of the commodity itself, as is the industry of supplying and distributing natural gas.

It is possibly impractical to assign relative or ranking importance to these many circumstances or factors. As to some, the lack of a single factor or its grossly inadequate functioning would completely disrupt and even eliminate the value of the commodity to the general public.

Natural gas is the name given to a mixture of combustible hydrocarbon gases and vapors, found confined, usually under pressure of hundreds to several thousand pounds per square inch, within certain subsurface rock or shale formations, more or less porous, commonly spoken of as sands. It is classed as a nonregenerative and nonreplaceable resource. These collections of gas are tapped by drilling wells hundreds to upward of 10,000 feet below ground level at cost ranging from a few thousand to \$40,000 and even more per well. Costs of wells depend upon depths, kind of subsoil encountered, bore of the well, water conditions, etc.

BASIS OF COMMERCIAL VALUE OF NATURAL GAS

Up to the present, the predominating commercial value of such natural gases is as fuel. As such they enter commerce on a strictly

⁵ Federal Power Commission Docket G-106 and G-119.

competitive basis with coal, wood, oil, and manufactured gas and to some extent with water power. In its purer forms, which means low in sulfur and in noncombustibles, so that its heating value is within the range of about 900 to 1,200 British thermal units (B. t. u.) per cubic foot, under standard conditions of test, it is already prepared by nature as the most conveniently applied and easily controlled fuel known to man, provided it is conveyed to and supplied at the points of use continuously and under suitable regularity of pressure and quality. This convenience in ultimate application and utilization gives natural gas a preferable position as contrasted with coal, oil, or wood for many but not for all purposes. It has preference over an adequate supply of manufactured gas, commonly supplied in cities, if the natural gas may be suitably delivered at a lower over-all price for equivalent heating value. As a commodity, natural gas has distinct disadvantages compared with coal, oil, and wood, in that it is so bulky that at atmospheric pressures, a cubic foot of gas contains from one-tenth to two-tenths of 1 percent as much potential heat energy as a cubic foot of solid and liquid fuels, as commonly stored. One thousand cubic feet of gas measured at city main pressure when compressed to 600 pounds per square inch occupies 26 cubic feet. In 1 cubic foot under 600 pounds pressure, there is only from 6 to 7 percent as much potential heat as in 1 cubic foot of ordinary coal. Natural gas like manufactured gas is so fugacious that it must be confined within thoroughly tight pipes and tanks even at atmospheric pressure and if the gas escapes into the air of poorly ventilated structures, may be exploded by numerous causes with disastrous results. Natural gas is only slightly toxic as compared with usual qualities of manufactured gas. Imperfect combustion of natural gas, as with manufactured gas and all carbonaceous fuels, produces highly toxic substances in the resulting gaseous products of imperfect combustion. Its value to the ultimate user is therefore very largely, almost exclusively due to the service imposed upon it in providing the means by which it is released from nature's storage reservoirs and is continuously kept under control until delivered under continuous regularity of supply to points of consumption. Even this service value tends to disappear when in competition with coal in high grade modern boiler plants where coal can be handled at low costs and efficiency of combustion maintained at higher values because of better chemical characteristics of coal compared with natural gas.

As a commodity, then, natural gas has a market value first in direct competition with other available fuels in which competition it has real disadvantages which without the following conditions render it particularly valueless; and secondly when serviced by the sellers to give a constant, reliable, and suitably regulated supply at all times to meet the instant demand of the consumer. By such service, it is possible to enhance its value per unit of equivalent heating value considerably above values on usual deliveries of other fuels to many consumers excepting customary supplies of manufactured city gas.

CONDITIONS OF RECOVERY FROM GROUND GOVERNED BY CONDITIONS DEMANDED AT ULTIMATE CONSUMPTION POINTS

In recovering natural gas from the ground, its fugacious character or tendency to move under ground rather long distances toward locations where the underground pressures have been diminished by

releasing gas through a well, and particularly where "the law of capture" prevails, makes it almost impossible for one owning acreage of land underlaid by gas sands to be sure of either recovering or conserving for his own benefit, the gas actually within his nominal ownership. This geologic feature gives rise to most of the apparent injustices that are complained of among owners of gas lands. This condition goes further and affects the investor in an industry or pipe line planned to use systematically over a period of years the gas available from acquired acreage in a given field. Still further, it affects the investments of a local utility undertaking to distribute gas piped to it from a field and finally the investments in facilities and economic balance in expenditures of ultimate consumers—the general public.

Compelled to market gas on the basis of a prospective long continued high class and adequate service in competition with other fuels, some means must be devised to insure orderly and adequate but not excessive withdrawals from any particular field upon which investments and dependence for a desired service are based.

The introduction of prorata withdrawals voluntarily or under legal requirements, has been advocated and practiced to a limited extent. Such regulations are most feasible when sufficient exploration has demonstrated a reasonable uniformity in the underlying sands justifying the assumption of equivalent volumes of gas of similar quality existant or deliverable per acre. With highly irregular geological conditions, prorata withdrawals might lead to inadequacies and injustices and be no solution. Measures taken in the name of conservation may have the effect of benefiting most largely those existing ownerships which are looked upon as unduly dominant. Therefore further provision may be required to regulate in the public interest such dominance.

WELL OR FIELD PRICES OF NATURAL GAS

Prices of gas at the wells, viewed nationally, have a wide range from about 1 cent to 30 cents per M cubic feet. Well or field prices for natural gas are initially determined by the types and proximity of markets available, upon the costs of drilling wells and upon the likelihood of yields of gas, both as to speed of discharge and period of time over which commercial yield of gas may be expected, based on experience with somewhat similar wells in similar fields. In the West Virginia, Ohio, and Pennsylvania gas fields, the well prices at 12 to 20 cents or more per M cubic feet, for years have averaged something more than twice the equivalent mine-mouth prices of bituminous coal for theoretically equivalent heat contents. This is in part due to the proximity of markets and facilities to supply them which have been long established, and in part to the usually rather slow and small yields of gas per well as contrasted with wells in California, Texas, Louisiana, and other western fields.

In gas fields like those of Wyoming, Texas, and Louisiana with potential yields of gas far beyond any nearby market capacities, and with enormous outputs per well, field prices generally range from 3 to 6 cents per 1,000 cubic feet with distress and impatient sales to natural gasoline strippers and carbon black plants at 1 to 2 cents per M cubic feet. Impure or "sour" gas is often sold at less than 2 cents per 1,000 cubic feet to such processors.

COMPETITIVE POSITION OF NATURAL GAS WITH BITUMINOUS COAL

The national average mine-mouth prices of bituminous coal of all grades in recent years have approximated \$1.90 per ton which is equivalent to approximately 7.9 cents per 1,000 cubic feet of "standard" natural gas at the well head. "Screenings" sell for much less, frequently at little over \$1.00 per ton while selected lump coal sells considerably above the average price. Fine sizes of anthracite follow the corresponding bituminous coal prices.

Average railroad freight charges in recent years for carload deliveries of bituminous coal amounted to \$2.27 a ton for an average haul of approximately 325 miles or 0.7 cent per ton-mile or 70 cents per ton moved 100 miles. These averages have been derived from United States Bureau of Mines, United States Bureau of Labor and Interstate Commerce Commission reports.

On the British thermal unit rating of bituminous coal at 12,000 B. t. u. per pound (24,000,000 B. t. u. per ton) and natural gas at 1,000 B. t. u. per cubic foot (1,000,000 per 1,000 cubic feet) the average freight charge of 70 cents per ton of coal per 100 miles is equivalent to 2.9 cents per 1,000 cubic feet of gas moved 100 miles.

The total average delivered price in carload lots of bituminous coal of \$4.17 per ton (\$1.90 at the mine mouth plus \$2.27 freight) inclusive of usual brokerage or other selling costs is therefore equivalent to a price of 17.3 cents per M cubic feet for natural gas at corresponding wholesale delivery points.

For short hauls and for smaller loadings than carload lots the transport rates on coal are considerably higher per ton per 100 miles, correspondingly raising the equivalent price which natural gas might carry and continue to compete with coal on the above thermal basis. As shown later, costs of transporting natural gas increase rapidly with decreasing pipe diameters and capacities.

There are no national compilations that establish average prices for transport or sale of natural gas equivalent to those quoted for bituminous coal.

These figures are presented to show an important, if not the most important, element in the competition which natural gas must meet in its search for industrial outlets.

On page 39 herein are shown the contract prices at which natural gas has been supplied for large utility operations by four important long distance large diameter natural gas pipe lines. Therein it is shown that with the commercially attainable load factor of 70 percent the transportation charges ranged from 2.4 cents to 5.88 cents per M cubic feet moved 100 miles. These prices were set by the companies without review by public authority except as noted in the case of sales to Detroit's gas utility.

Frank L. Fisher, a natural gas engineer, who had served various public organizations as expert adviser in natural gas negotiations was called by the Federal Trade Commission to testify on natural gas matters. He estimated that the cost of transportation of natural gas in the Panhandle Eastern Pipe Line from Texas to Indiana at a 70 percent load factor, including an 8 percent return on the investment and an allowance for amortization of the investment, would be 2½ to 3 cents per M cubic feet moved 100 miles. These figures do

not include the field price of the gas as a commodity entering the pipe line for transportation.

In Federal Trade Commission Report 84-A (S. Doc. 92), pages 141-144, the elements of costs of transmitting natural gas are shown as worked out from the records of three 20 to 24 inch diameter pipe lines for the year 1934 and for one 12 inch diameter pipe line for the year 1927. Two of the four lines had not acquired the approximately 70 percent annual load factors considered as essential for profitable operation.

Therein the lowest actual average cost was 3.2 cents per M cubic feet moved 100 miles inclusive of 6 percent return on the investment, including also taxes and amortization as set up by the company, which latter two items combined amounted to approximately 6 percent on the investment. The corresponding figure for the 12 inch diameter 178 mile Kentucky Pipe Line operating at a high load factor in 1927 was 7.15 cents per M cubic feet moved 100 miles as the entire cost including taxes and depreciation of 2.7 percent on the investment and 6 percent for return on the actual investment. This line had been in operation since 1914 and in 1927 operated at 77 percent of its rated capacity.⁶

The Federal Power Commission will probably soon have later figures for better loadings of some of these lines, which may be expected to reduce the average cost per 100 miles by appreciable amounts.

The Federal Coordinator of Transportation in his Freight Traffic Report indicated that for the petroleum pipe lines, gross revenues averaged 0.66 cent per ton-mile or 66 cents per 100 miles, that operating costs including taxes and depreciation but no return on the investment averaged 0.32 cent per ton-mile, leaving profits of 0.34 cent per ton-mile. The average haul appears to have been 385 miles.

Interstate Commerce Commission statement No. 3848 reporting certain financial and operating statistics for pipe lines in 1937, indicates that mileage of oil lines had increased about 5 percent with corresponding increases in investment and markedly greater tonnage of petroleum transported with some reduction in average revenue per ton-mile (about 0.55 cent per ton-mile) and with costs without capital return about 0.30 cent per ton-mile.

A ton of crude petroleum in potential heating content is equivalent to about 40,000 cubic feet of gas. Therefore, at 66 cents per ton of petroleum moved 100 miles, gas would have to be transported at a total charge of 1.65 cents per M cubic feet per 100 miles. Exclusive of the large average profit (in 1932 14 percent and in 1937, 13.75 percent), the oil pipe line operating cost of 32 cents per 100 miles would be equivalent to 0.84 cent per M cubic feet per 100 miles for natural gas.

Nearly one half the petroleum trunk line mileage is in 8 inch diameter pipe. The largest size pipe, 12 inch diameter, constituted but 8 percent of the total mileage in 1931. There are several thousand miles of gas pipe lines of 20 inch to 24 inch diameters. Insofar as

⁶ In a brief by the Illinois Commerce Commission before the Federal Power Commission, in a pending case to obtain reduced prices from the Natural Gas Pipe Line Co. of America for natural gas, it is stated, on p. 108, that earnings from operations for 1938, "after deducting the company's own charges for depreciation, depletion, and retirements, the remaining earnings were \$6,652,112. This is \$3,795,215 in excess of a 6 percent return."

For 1939, "the actual figures for the first 8 months (exhibit 187)" on the same basis were "\$5,354,114 in excess of a 6 percent return." On the basis of the depreciated fixed investment including working capital of \$47,614,951, as at December 31, 1938, as computed by the Illinois Commerce Commission, this would give a return of 13.97 percent for 1938.

averages may serve as bases for generalizations and realizing that average data as to costs and revenues of gas pipe lines on a normal operating basis are not at hand, the data presented above appear to indicate that natural gas transport in the larger pipe lines is closely rivaled by costs of transport of coal for the same distances and that petroleum is transported in pipe lines, both as to charges and actual costs, at probably lower figures than can be realized by natural gas. Costs of transport of natural gas appear to increase rapidly with decreasing sizes and capacities of the pipe lines.

As a raw material at sources of supply, natural gas averages in value something below the average value of coal. Natural gas averages to be worth in the field about 30 percent as much as petroleum at \$1 a barrel. However, it is well to bear in mind that the low national average for natural gas is due to the very low value of natural gas in the Texas, Oklahoma, and Louisiana fields because of great production and inadequate nearby markets whereas throughout the Appalachian area natural gas at the wells ranges from twice to nearly four times the corresponding nearby mine mouth coal prices.

TRANSPORTATION OF NATURAL GAS IN PIPE LINES

The problems of importance in the distinctive function of pipe line transportation of natural gas may be grouped as engineering and economic. The engineering problems have been successfully solved, in that pipe line systems have been constructed that permit of transportation costs within competitive range of those of coal and oil and a high degree of continuity of service has been so far rendered, although the possibility of complete disruption of transportation due to a major calamity along the usual single line of pipe constituting most of the mileage of all the great pipe lines still remains. All the major long pipe lines traverse extensive regions of marsh or alluvial soil and cross numerous rivers subject to destructive floods and washouts. But the design and equipment installed including multiple pipes at recognized danger points such as river crossings have under untiring and far-sighted management succeeded in meeting demands for service voluntarily accepted for the pipe lines. The present competitive and profit seeking bases do not permit of the installation of complete duplicate facilities to guarantee the service equivalent to the full normal capacity of the single pipe line installed for long distances.

The economic problems of the pipe lines are related importantly to (1) the volume and duration of the field supply of natural gas within reasonable distances of the pipe line; (2) the attainment of a consumption load adequate to utilize the facilities for transport at a good load factor throughout the expected life of the project; (3) the usual concept that the fields of supply will sometime certainly be exhausted and the pipe line become useless, so that amortization of the investment in natural gas handling facilities within possibly less than the physical life possible to the facilities, is essential to safeguard the investment.

Market surveys of the probable volumes of gas that can be sold within price ranges that will give adequate loads on the proposed transportation system, such prices permitting adequate compensation to the pipe line including the scale of profits sought, with sufficient advance contracts obtained from prospective purchasers have been

the basis upon which the large investments in pipe lines have been made. These investments for pipe line systems built of 18 inch to 26 inch diameter pipes, with compressing stations, valves, bypasses, metering, gas cleaning and condensing equipment and laterals to important wholesale takers of gas are of the order of \$20,000 to \$40,000 a mile of main line resulting in authenticated total investments for the long lines built since 1926 of the order of \$10,000,000 to \$50,000,000 varying importantly with the diameters and total lengths of pipe, pressures to be maintained and resulting volumes of gas to be transmitted. There are numerous shorter pipe line systems in which the main lines consist of pipe sometimes as small as 6 inches in diameter, with investments of \$1,000,000, more or less.

The capacities of these lines range from transportation of a few million cubic feet per day up to approximately 200,000,000 cubic feet per day.

The length of the line is immaterial as to its capacity since with sufficient pressure boosting stations along the line, continuous flow of gas may be maintained. Length, however, is important from the standpoint that every 100 miles of line adds to the operating costs and investment charges of the order of 2 to 3 cents per M cubic feet in the very large well-loaded lines to possibly 6 or 8 cents on the smaller lines. Naturally small lines are not employed for long distance transportation as the resulting expense would be prohibitive in most markets where other fuels were obtainable at reasonable prices. On the other hand large capacity lines are not installed unless there is a reasonable certainty of an adequate and remunerative market existent within reach of the lines for a goodly percentage of its capacity.

Like electric service, experience has shown that in general service to large communities, combined with special deliveries to large industry, load factors of between 60 and 70 percent may be attained. Where large sales of gas on an interruptible basis can be made, load factors may be higher but at lower unit revenues.

Operating expenses are relatively low, in well loaded large lines averaging well under 1 cent per M cubic feet moved 100 miles, but capital charges, particularly depreciation or amortization allowances, and claimed rate of return in view of asserted risks involved taken at moderate rates account for 2 to 3 cents per M cubic feet per 100 miles. As in other utilities, reasonable allowances for amortization and profit constitute the crux of fair charges for transportation.

The economic success of a natural gas transport pipe line depends, therefore, at the outlet end upon an adequate market to absorb volumes of gas to give a good load factor to the installed facilities at prices permitting of meeting operating expenses and capital charges of the facilities employed and at the inlet end, a reasonable certainty of a supply of gas within economical reach that can be drawn upon to meet the irregularities in demand day by day, almost hour by hour, and that will continue through a number of years sufficient to permit amortizing the pipe line investment before it becomes useless because of exhausted supply. Too short a number of years taken for the amortization period would unduly enhance the price required above the disposition of the market to pay it, too long a period might overshoot the time when exhaustion took place, leaving unamortized investment with no future income to meet the deficit.

There appears to be no serious problem of obsolescence in the pipe line industry. Present material, design, and installation, the resultants of over 50 years of experience, have little tendency to obsolescence. The major problem is how long can supplies of gas be obtained to maintain the line in adequate operation. The gas pipe line industry appears to have no thought that its lines after exhaustion of the available natural gas supply may be continued in use for transport of manufactured gas or other commodities. Crude petroleum pipe lines have been used to transport refined gasoline or natural gas when beneficial transport of petroleum in such pipes ended.

MARKETING OF NATURAL GAS DETERMINES THE SCOPE AND CONDUCT OF THE GAS INDUSTRY

As in a few other industries, there is no market for an intermittent, irregular supply of natural gas at points distant from original sources to justify the installation or operation of a typical trunk pipe line. The general public can derive no satisfaction from such a supply. While the actual consumptions of ultimate consumers are bound to be individually irregular and periodic rather than continuous, the factors in gas supply which make that commodity a preferred fuel are the possibility of automatic gas consuming appliances, the instant quick availability of the fuel at the consumer's appliances, and that the immediate conditions of consumption are so easily controlled by the consumers, provided the supply of gas has been adequately serviced to the point of practically absolute reliability, adequacy, and quality.

Besides the competition from the cruder fuels, coal, wood, and petroleum products, natural gas in not a few communities must meet competition from surplus byproduct coke ovens gas, rich byproduct gas from petroleum refineries, and even lean blast furnace gas. The present gas supply distributed in Baltimore is a mixture of coke oven, blast furnace, oil refinery, and directly manufactured water gas, the purchased gas constituting in a recent year 68 percent of the total supply. Moreover, much of this purchased gas is obtained on a reciprocal basis in connection with the supply of electricity and standby facilities. The management of the gas supply in Baltimore, subject to the regulation of a long standing Public Service Commission, decided there could be no advantage in purchasing natural gas from a large pipe line desiring the business which passes not many miles to the west and northwest of Baltimore. One might say that the pipe line set too high a price upon its natural gas on the one hand, and that the utility desired to preserve its deals and its price structures on the other, but in the absence of competently analyzed facts as to costs and character of demands for gas, as affecting both companies, no assertion can be justified other than that waste industrial gases present prima facie competitive features against natural gas available from a nearby pipe line.

In the distribution of gas throughout a community the worst possible happening from an operating standpoint is a system cessation of supply of gas to consumer's premises. Asphyxiations and explosions are too liable to occur upon restoration of supply, unless all consumers have shut off all open burner cocks. For the safety of life and prop-

erty all that human effort can accomplish must be directed to a continuous system supply of gas under regular pressures. The delivery of no other commodity is impressed with such an all compelling continuous service requirement. In addition, satisfactory service demands fairly uniform combustion characteristics of the gas primarily dependent upon uniform chemical composition.

Very few or no important communities are supplied wholly with natural gas when dependent upon a single long pipe line. The demands of responsible operating procedure insist that local gas manufacturing facilities be kept available to make up any deficit in supply or substitute if the supply of natural gas is disrupted by any of the calamities of nature or malicious tampering which may break the pipe line. This operating pressure for safety reasons happens to coincide with the desires of the owners of the existing manufactured gas equipment otherwise rendered useless by the introduction of natural gas, to retain such investments in the rate base until amortized out of earnings. It is one important reason why the great majority of consumers have experienced but little reduction in rates for some years after introduction of natural gas in replacement of manufactured gas.

In our larger cities, the burdens assumed by the local distributing utilities of readjusting, as is always necessary, all consumer gas-using devices so as to use natural gas or rich mixtures thereof has cost between \$1,500,000 and \$2,500,000 in certain large cities, which was of the order of \$2 to \$5 per customer.

This possibility of inadequacy of continuing natural gas supply has great weight with conservative managements, public and private.

Since the chief value of fuel gas to the great majority of consumers lies in the convenience of its use, which in turn springs essentially from the servicing in delivery provided by investment and management, the entire program of conduct of the industry must conform to these major requirements or there will exist almost no general and high value market for the gas. The industry must be organized and function to meet these requirements of service within such economic limitations as will allow adequate volume of sales in view of costs of equivalent service from competitive sources of heat.

It is in view of these compelling market requirements that the practices which have developed in connection with the industry should be analyzed and any attempts at governmental regulation to remedy seeming evils should be undertaken, else destruction of service to the public as well as destruction of investments may occur, and increased wastage or low form use of this natural resource be encouraged.

Up to the present with minor exceptions all the trunk gas pipe lines assume ownership directly or through affiliates of the gas which they contract to deliver at the termini of the pipe lines. The pipeline management is responsible not only for transportation of the gas but for the adequacy of the supply and the continuity of delivery. It assumes the responsibility of adequately meeting the considerable variations in volume of gas demanded by consumers hour by hour and season by season. It is well known that in communities utilizing natural gas largely for building heating as well as other domestic and industrial purposes, extremes of weather conditions require maximum days delivery of the order of six times that required in minimum demand days, while the range in hourly demand is far greater.

To be able to deliver gas as and when required by ultimate consumers, responsible pipe-line managements have sought positive control of the sources of supply, either or both by ownership of gas land leases and wells or by contracts for purchase of gas as and when wanted from responsible producers of gas. They have further undertaken to assure themselves that ground reserves of gas adequate for future years were available and would not be diverted to other uses.

This situation is again complicated by the common fact that much gas is pressing for a market since it is unavoidably a byproduct in the recovery of much wanted because far more valuable petroleum. Unless this byproduct gas can be taken by industry nearby or transported by pipe line to distant localities for use it must be largely wasted. In recent years approximately 50 percent of the total natural gas marketed has been withdrawn from the ground in connection with petroleum recovery. In California it is stated ⁷ that nearly 95 percent of the natural gas marketed is derived from petroleum operations and therefore the supply and also waste of natural gas are contingent upon petroleum production. Naturally, petroleum producers wish to recover all values possible and will endeavor to press for the sale of their byproducts, if necessary to the exclusion of sales of gas produceable from strictly gas wells, wherein the gas may often readily be conserved for use later when the petroleum sources are exhausted. Such an attitude of the petroleum producers is also, to an extent, in line with the public interest in conserving and usefully consuming an unreplaceable natural resource.

There exists in many localities, the fact of diversified ownership of lands presumably underlain with petroleum or gas or both with some ownerships undertaking to recover through their own drilling of wells the underground resources yet without marketing facilities which can assure them a fair price for their products in competition with larger producers commanding pipe lines as the most economical means of transporting their products to market.

The picture in summary is: Great volumes of natural gas, often a byproduct, press for remunerative markets, which markets are mostly at considerable distances from the lands underlain by the gas. Such markets can only be reached via expensive pipe lines. In these markets, the gas is only acceptable under definitely positive assurances of an adequate, uniform in quality and continuous supply at prices not in excess of the relative costs of equivalent fuels (including, of course, the values of saved labor, convenience, and other advantages in use).

Persons or corporations contracting for such vital gas service will deal only with responsible organizations which can be judged as in position to fulfill their obligations for the continuous service.

The evidence developed by the Federal Trade Commission, as exhibited in its reports to the Congress, indicate that frequently groups often quite independent in their management positions, joined with other groups actively in furthering practices which stifled competition, in eliminating or embarrassing independent pipe line ventures, in allocating spheres of occupation or influence, and in managing outlets for natural gas wholly in the interest of the groups in control in par-

⁷ *Geology of Natural Gas*, edited by Henry A. Ley. American Association of Petroleum Geologists, Tulsa, Okla., 1935, p. 113.

ticular gas fields or in control of distribution facilities in large consuming centers.

INFLUENCE OF IMPORTANT FINANCIAL GROUPS IN THE NATURAL GAS INDUSTRY

As has been pointed out more or less clearly, natural gas as the commodity base of an industry has at least three relationships in the economic picture of the nation.

First, natural gas is frequently an associate product, often primarily a byproduct, in the search for and recovery of petroleum. Only after a system of pipe lines and accessories for ultimate marketing has been established through an extensive investment in facilities for exclusive handling of natural gas as an industry in itself, with commitments obligating a continuous and adequate supply of natural gas, is there any active exploration for new and supplementary sources of gas. Even then, there is often a hope that the far more valuable petroleum may be disclosed associated with the gas.

Therefore, the major sources of natural gas have almost invariably been discovered and more or less developed by the financial interests active in the petroleum industry. Sometimes the petroleum interests sell what turn out to be primarily gas fields to other operators, sometimes the petroleum interests retain control of the gas primarily in order to most advantageously further their petroleum operations by using it for repressuring underground "sands," as a source of power for new drilling, in pumping petroleum and in other close-by operations and sell the surplus at wholesale to other ownerships. Sometimes, and this is particularly the case with Standard Oil Co. (New Jersey) subsidiaries, the petroleum producers form new corporations in association with other producers and with interests controlling desirable gas utility systems as possible markets for gas, to establish gas pipe lines and seek utility and industrial markets for the surplus gas.

Second in importance are the large fuel consumers, inclusive of industries, such as steel and other metallurgical and chemical processing plants, and especially already organized and equipped gas utilities in the larger communities. These latter have for many years been under the control of large holding companies which also have controlled competitive energy supplies, particularly electrical and oil and in turn most of them often had close affiliations with certain so-called investment bankers.

The large volume, concentrated and already established facilities maintained by such major gas utilities presented a desirable, even positively required market immediately ready upon settlement of terms between the producers of natural gas and the utilities. Such utility markets, while interjecting certain onerous requirements and likely of themselves to have a highly fluctuating demand and, therefore, low annual load factor, do, when coordinated with large industrial consumption, help to develop normally a high load factor and supplement one another. A recent chart set up by Edison Electric Institute covering the period 1928-39, shows that the domestic and small light and power demands reach their peaks in midwinter with lowest demands in midsummer, while the large light and power demands show peaks in late summer and early fall with the troughs of such demands

appearing in midwinter or early spring. It may be expected that the differences in consumption of gas by domestic and other small consumers in contrast with the industrial gas consumption may follow a similar trend.

It follows that the cooperation of the company groups having control of gas utility service in the larger American cities was essential to any adequate development of large volume and widespread use of this natural resource, pressed as it was for opportunities to usefully and profitably dispose of its gas, rather than have it virtually wasted by being blown to the air or utilized partially in low form operations near the fields of production.

Among stronger holding company groups largely interested because of control of important possible markets for natural gas are—

Electric Bond & Share Co.

North American Co.

Cities Service Co.

United Power & Light Co.

The present fragments or reorganizations of Middle West Utilities Co. and other former "Insull organizations."

United Gas Improvement Co.

Utilities Power & Light Co.

Niagara Hudson Power Co.

Pacific Gas & Electric Co.

Public Service Co. of New Jersey.

Commonwealth & Southern Corporation.

Columbia Gas & Electric Corporation.

Standard Gas & Electric Co.

Lone Star Gas Corporation.

Some of the groups listed (or their predecessors) were operating utility natural gas distribution systems previous to the great expansion that has occurred since about 1926.

Vitally interested in the increase in natural gas distribution was the Koppers Co., designers, constructors, and sometimes through subsidiaries, operators of byproduct coke oven plants, which in response to the increasing demands for metallurgical coke on one hand and availability of utility systems as distributors of the surplus gas on the other had developed a large business in coke ovens and accessories. Such ovens depend in part, in their competition with the wasteful and atmosphere polluting old time beehive coke ovens, upon remunerative markets for the byproducts of which gas is normally the most important. The natural position of the powerful Mellon-Kopper interests would be in the direction of limiting or preventing natural gas displacing the market for byproduct coke oven gas.

A lesser group interested in the marketability of a combustible gas would be the oil refineries near the large city utilities which found a market for excess petroleum refinery gases in the manufactured gas utilities.

Even surplus blast furnace gas has been marketed through gas utility systems, being mixed with other grades of gas.

The third group of interests would be the coal producers and to a less extent, fuel oil producers.

It may be well recognized that the advance in the use of natural gas has been almost entirely in substitution for previously used coal,

wood, and fuel oil as direct sources of heat or for the products of those same natural materials manufactured into combustible gases for distribution and consumption as such.

Natural gas can generally be sold to users of other types of fuel only when the overall cost of the new fuel will represent some saving compared with fuels already in use.

Since most petroleum producers are interested directly or indirectly in obtaining revenues for the gas accompanying the petroleum, and there is a wide market for petroleum products other than as a more or less crude fuel, little important opposition might be expected from the petroleum industry.

But with coal, the situation is entirely different. However, with the widely scattered ownerships in coal mines, while there has been some opposition, it does not appear to have been extensively organized.

In the petroleum industry, so closely concerned with the natural gas industry, the outstanding group is composed of those corporations in which the Rockefeller family and related interests have important minority stock holdings. Assuming that personal stock holdings of John D. Rockefeller, Jr., are reenforced, in all essentials positions taken, by stock held by other members of that family, by trustees for family trusts and for the several foundations set up by the Rockefeller family, Rockefeller interests are represented as of January 1, 1939, by the following percentages of voting stocks.

	<i>Percent</i>
Standard Oil Co. (New Jersey).....	14. 52
National Fuel Gas Co.....	22. 23
Socony-Vacuum Oil Co.....	17. 25
Standard Oil Co. (Indiana).....	13. 56
Ohio Oil Co.....	13. 02
Standard Oil Co. of California.....	12. 58
Consolidated Oil Co.....	6. 10

Smaller percentages of holdings appear in a few other important petroleum producing and refinery organizations.

It may be pointed out that in the Consolidated Oil Co., H. F. Sinclair and E. W. Sinclair occupy important executive positions while a third Sinclair is a director, along with the two Sinclairs first mentioned.

Of the above listed companies, Standard Oil Co. (New Jersey) is through subsidiaries an extensive producer, shareholder in the investment in and operator of large gas trunk pipe lines and in local distribution of natural gas in Eastern, Midwestern, and Southern States. Ohio Oil Co. distributes a relatively small quantity of natural gas in Wyoming but produces more or less gas with its petroleum operations in several States. National Fuel Gas Co. is the important factor in the production and distribution of natural gas in western New York State, in some Pennsylvania communities and in Canada.

Standard Oil Co. of California, through subsidiaries, produces gas as a byproduct of petroleum recovery, has a 50-percent interest in a pipe line to San Francisco Bay and controls local distribution of natural gas in a number of moderate or small sized communities. Its business in gas is entirely intrastate.

The rest of the list are practically only wholesalers of gas at or near the production fields.

It will be recognized that a long-held coherent minority interest of much less than 50 percent, even less than 20 percent may exercise

a powerful, even dominating influence on the policies of a corporation. However, the Federal Trade Commission has no evidence for or against a claim that policies found in operation were in anywise the result of personal pressure from the Rockefeller family.

The utility holding companies which are important in natural gas matters divide rather clearly into those (1) whose interests are solely as purchasers at the city gate for redistribution and (2) those that have entered the natural gas industry more or less in the fields of production or purchase, transportation by pipe line, and local distribution under utility conditions.

In the second group which alone are in position to be at all dominant in the industry as a whole because controlling two or more necessary functions are—

Cities Service Co.
 Standard Gas & Electric Co.
 Electric Bond & Share Co.
 Columbia Gas & Electric Co.
 Lone Star Gas Corporation.
 United Power & Light Co.
 North American Co.
 Peoples Gas Light & Coke Co. (Chicago).

The United Corporation, organized by J. P. Morgan & Co. (in cooperation with Bonbright & Co. Inc.), in 1929 to hold stocks in utility holding companies and associated management companies, as of December 31, 1938, held 19.6 percent of the voting stock of Columbia Gas & Electric Corporation and 3.1 percent of Columbia Oil & Gasoline Corporation. It also held five-tenths of 1 percent of the stock of Electric Bond & Share Co. All its other holdings were in utility holding companies which controlled local gas utilities which have become or might become purchasers of natural gas for local distribution.

The principal stockholders in the United Corporation late in 1938 were—

	Percent
St. Regis Paper Co.....	7. 11
The American Superpower Corporation.....	5. 96
The George W. Crawford estate.....	. 54
J. P. Morgan & Co.....	. 16
Koppers Co.....	. 61

The St. Regis Paper Co. was originally an industrial corporation in which Floyd L. Carlisle and associates were dominant.

The American Superpower Corporation, incorporated in 1923 as a Bonbright & Co., Inc., enterprise, transferred its large holdings in United Gas Improvement Co. and Public Service Co. of New Jersey to help form the new United Corporation. Since 1938, it has so adjusted its portfolio as to own less than 10 percent of voting stock in any public utility or holding company. It owns a small percentage of Electric Bond & Share Co. stock and the latter company owns a small percentage of stock in the American Superpower Corporation.

It is commonly inferred that J. P. Morgan & Co. holding of record but sixteen one-hundredths of 1 percent of the voting stock of the United Corporation nevertheless dominates that company. Early in the history of the United Corporation, J. P. Morgan & Co. was represented by four of its partners on the board of directors, while Bonbright & Co.

was represented by two directors. Several of the other directors were chief executives of holding companies in which the United Corporation held important though distinctly minority stockholdings.

It is quite evident from the history of numerous events in recent years reviewed in part here and more fully set out in the Federal Trade Commission reports that a strong pattern of conformity to the desires and practices of the several interests controlling pipe lines and markets exists. There are business reasons from the standpoint of the corporations for most of the positions taken. That such positions were a result of some one or two top influences dictating them is still but an inference, which possibly ignores the natural force of the practices considered as necessary for success on the part of those managing the various branches of the business.

The Morgan counsel doubtless has an influence far beyond that derivable from recorded voting stock held.

Likewise the representative of the Rockefeller family, if so disposed, could doubtless exert great influence in the so-called Standard Oil group.

OWNERSHIP BY LARGE INDUSTRIAL AND UTILITY INTERESTS

The Standard Oil Co. (New Jersey) holds 54 percent of the voting stock of Interstate Natural Gas Co., Inc., operating a natural gas pipe line in Louisiana and Mississippi, 42.5 percent in Colorado Interstate Gas Co. operating in New Mexico and Colorado, 22.4 percent in Mississippi River Fuel Corporation operating in Louisiana, Arkansas, Missouri, and Illinois, and 13.3 percent in the Natural Gas Pipe Line Co. of America, operating a line from the Texas Panhandle to near Chicago, Ill. In three of the four pipe line companies just mentioned, other corporations hold equal or greater percentages of voting stock and in all of them one or more other companies hold or control through subsidiaries important though minority percentages of stock. These companies are United Carbon Co., Columbian Carbon Co., The Texas Corporation, Cities Service Co., Peoples Gas Light & Coke Co. (of Chicago), Southwestern Development Co. and United Gas Corporation.

Standard Oil Co. (New Jersey) through practically 100 percent stock ownership controls extensive natural gas recovering, transporting and distributing corporations operating in Ohio, West Virginia, Pennsylvania, and New York, in areas more or less interlaced by the systems of the Columbia Gas & Electric Corporation, Cities Service Co. and Standard Gas & Electric Co. Other so-called Standard Oil corporations are producers and wholesalers in the field of natural gas with, in a few cases, operations in limited areas as distributors of natural gas; these operations are generally without national or interstate significance.

The Electric Bond & Share Co. has a 47.2 percent voting stock interest in Electric Power & Light Corporation, which has a 51.3 percent holding in the large United Gas Corporation. The United Gas Corporation through important subsidiaries operates a large integrated natural gas system operating from Louisiana through Mississippi and Alabama to Pensacola, Fla. It also extends across Texas into Mexico. It also owns a 46.7 percent voting stock interest in the Mississippi River Fuel Corporation, having the largest holding of the four corporations owning the stock of that company.

The Columbia Gas & Electric Corporation is a large corporation active in the natural gas field, particularly in the Appalachian area. Through the Columbia Oil & Gasoline Corporation, for years a wholly controlled subsidiary, it acquired a 55.5 percent voting stock interest in the Panhandle Eastern Pipe Line Co., which built a gas pipe line from Texas to Indiana, originally independent of any oil or utility group. The exact relations between the two Columbia corporations have recently been under revision because of governmental pressure.

The Lone Star Gas Co., operating an integrated system in Texas and Oklahoma, is indirectly affiliated with Columbia Gas & Electric Corporation, through important stock holdings by individuals promi-

nent in Columbia Gas & Electric Corporation. The Lone Star Gas Co. has a 30 percent interest in the voting stock of Northern Natural Gas Co., along with a 35 percent interest therein held by a subsidiary of the North American Co. and a 35 percent interest held by the United Light & Power Co.

Cities Service Co. interests operate petroleum and natural gas fields, transport and distribute gas under franchises. Cities Service Co. has from 100 percent down to 10 percent stock interests in numerous gas and oil producing companies, in oil pipe lines and in the Colorado Interstate Gas Co. and Natural Gas Pipeline Co. of America.

The table marked exhibit No. 4 shows in shares the holdings of the various Rockefeller interests in certain petroleum and natural gas producing companies, some of which are actively interested in important natural gas pipe lines.

The table marked exhibit No. 5 shows in percentages the stock holdings by large holding companies, including United Corporation and American Superpower Corporation, in other utility holding companies whose subsidiaries are important producers and distributors or purchasers and distributors of natural gas.

Exhibit No. 6 shows, in tabular form, in percentages the intercorporate holdings of voting stock by important industrial and utility corporations or groups in companies operating important natural gas pipe line or distributing systems.

Exhibit No. 7 is a table showing the principal stockholders, together with the number of voting shares and percent of total held by each of these principal stockholders in the group of industrial and utility holding companies listed in exhibit 3 as holding stocks in natural gas pipe line or distributing companies.

Exhibit No. 8 shows, in greater detail than previous exhibits, the percent of voting stock held by important industrial and utility holding companies in other companies producing, transporting, or distributing natural gas.

Exhibit No. 9, attached, presents data on production, purchases, and interstate transportation of natural gas and natural gas pipeline mileage controlled by the corporations included in the four important groups previously designated, including in exhibit No. 3 names of corporations not classed as subsidiaries but which through common stockholders or through contracts for sale or purchase of gas or through specific sharing in the financing of natural gas pipe lines, may be considered as having more or less community of interest, in order to meet the compelling conditions of marketing natural gas.

It will be noted from this exhibit—

(1) That a number of petroleum companies are important producers of natural gas but do not transport such gas under their ownerships through interstate pipe lines.

(2) That some utility groups integrate production, purchase, and pipe line transportation. Such utility groups always control important local distribution of natural gas.

(3) That several important utility groups, more or less affiliated through holding companies as common stockholders, appear on this exhibit solely as purchasers of natural gas for redistribution as gas utilities.

(4) That the list does not include all corporations interested in production or pipe line operations.

INTERLOCKINGS OF OFFICERS, DIRECTORS, AND PERSONNEL

No attempt has been made to set up charts or tables of the interlocking of officers, directors, or personnel among natural gas and natural gas pipe line companies. Since the disclosures of such interlockings in the Federal Trade Commission's utilities investigation, many changes have occurred. To bring the situation accurately up-to-date, to include especially employees, who have sometimes taken the places of officers or directors, is a task which would have required more investigation and expense than could be made for that one point. Whether this is of such vital or desirable character as to call for investigation is for the Congress to decide as to direction and appropriation of needed funds.

CONTROL OF THE PIPE LINES AND GAS SUPPLY (EAST OF THE ROCKIES)

East of the Rockies, counting lines under contract, the four important groups previously named and their associated and affiliated interests own or control or participate in such ownership or control (including contracts for their use) of approximately 41,584 miles out of approximately 52,000 miles of natural gas trunk pipe lines in the United States, or about 80 percent (exhibit 9). This does not include Southern Natural Gas Corporation, with which Electric Bond & Share Co.'s United Gas Corporation has a contract for natural gas transport from the Louisiana fields to its lines in Mississippi and the Southeast. Such control means that one or another of these four groups of interests is into practically every one of the large cities or use centers which are at present being supplied with natural or mixed gas. (The percentage of the marketable natural gas which these four produce is less material because pipe line transportation is necessary to take the supply to the use areas.) Pipe lines are the only available transport and therefore their control may mean control of the supply at the consumption destinations. However, the "Big Four" do own, or control under lease, etc., sufficient supplies of natural gas to give full effect to that bargaining power, of which control of transport is the largest element. Of the natural gas supply of the United States, the four groups and their associates by ownership produce about 37 percent of the natural gas production of the United States, and in addition handle by purchase about 36 percent. In the latter are very probably quantities reported under production of some corporations in the groups and sold to other corporations in the same groups.

The Standard Oil Co. (New Jersey) interests, apparently, do not appear at all in the electric picture east of the Rockies. However, the Standard Oil Co. of California (in which the Rockefeller interests have a 12.6 percent voting control) directly and through subsidiaries has a 50 percent voting stock interest in the Standard Pacific Gas Line, Inc. The other 50 percent is owned by the Pacific Gas & Electric Co., the biggest Pacific Coast utility. Two Eastern utility systems, viz, North American Co. and Standard Gas & Electric Co., have an interest in the Pacific Gas & Electric Co.

In Texas, because of its large interests—often approaching 100 percent—in the recently discovered and only partially developed oil and gas fields along the upper Texas Gulf Coast, already extending from Beaumont to Matagorda Bay, Humble Oil Co., a subsidiary of Stand-

ard Oil Co. (New Jersey), is a large factor in the potential supply and reserve of natural gas.

As already pointed out, the "Big Four" groups possess a considerable ownership in the supply of oil, natural gas, or electricity or of one or more of them. Some of these interests also have some ownership in bituminous and anthracite coal. The extent of this control could not be determined without a considerable expenditure of time and money.

This means that in many communities of the eastern section of the United States all, or a very large proportion, of the available supply of energy is provided by companies which may have interests in common through their affiliations with these community of interest groups.

EFFORTS OF INDEPENDENTS TO ENTER THE NATURAL GAS TRANSPORTATION FIELD

About 1930 a number of outside or independent interests entered, or attempted to enter, the field of natural gas transportation. More projects of this nature were probably undertaken by the Moody-Seagrave interests than any other group. They were the active promoters of the group which became the Electric Bond & Share Co.'s United Gas Corporation group of southeast Texas and Louisiana. They also took part in projecting a pipe line to Colorado Springs and Denver, as well as a projected line to Omaha. Then Mr. Seagraves, apparently, with a desire to get into the eastern, more centralized and higher priced market, came into the projected Kentucky-Detroit line, described, with other projects, later in this report. (See pp. 150-169 herein.)

NONRAIDING POLICIES

Without attempting to assess or apportion blame or determine its character, it may be said that another cause of the degree of concentration of control of natural resources in the United States which exists, including that in natural gas, comes from the original long-retained belief in the inexhaustibility of such resources and the resulting laissez faire and failure of those in control of the Government in all branches to recognize in the rapid expansion and growth of this big new country the possible limitations and depletion of these resources and the failure to adopt or accept the doctrine of public trusteeship for the public domain and these vast resources. Thus no substantial trusteeship was ever exercised over them. The result is that the big interests at first competing in any industry soon reached the stage equivalent to allocating territory among themselves. That is to say, they respected each other's occupied territory and adopted what has long been known as the nonraiding policy. In this way few, if any, raids occurred, and each interest was left in full supremacy of its allocated territory. The result is the present degree of concentrated control or community of interest sufficient to influence policy and action in natural gas and pipe lines by the four major groups of interests, with a few others on the fringe.

Thus, notwithstanding this situation of availability of natural gas in the fields and existing transport lines, there are still a number of large cities and use areas in the United States which are not served

with natural gas. The reasons therefor are variously expressed. All want natural gas if obtainable, as advocates contend, at lower equivalent prices than existing fuel supplies. The stories of some of these will later on be briefly told. Sufficient to say at this point that two prior efforts of independent interests to bring gas to Detroit were foiled by the major interests and that when finally secured, it was through one of the four important groups, namely, Columbia Gas & Electric Corporation, but not until after the Columbia had secured control of the one partly completed major independent pipe line from the Texas-Kansas field (F. T. C. 83: 127-138, 174-180, 222-223, and 70, 78-79).

The recognition of the spheres of influence of the several participants in the larger pipe lines was in evidence specifically in the contract providing for financing, construction, and operation of the Natural Gas Pipe Line Co. of America, dated March 10, 1930 (F. T. C. 62: 440-441). Therein it is specifically provided (sec. 3) that the several petroleum and carbon companies having gas to sell, may sell gas to others subject only to priorities due the Natural Gas Pipe Line Co. of America. On the other hand, in section 5, it is as distinctly specified that Insull shall control the sale of gas from the pipe line in the communities supplied by Insull utilities. Likewise, any other utility management affiliated with the pipe line shall control and handle the sale of gas from the pipe line in all communities in which it distributes gas. As to nonaffiliated utilities, the pipe line management was to make contracts directly with such utilities. The affiliated utilities were obligated to actively push the market for natural gas.

It would seem that the time has arrived when the control of the output of gas fields can no longer be left to all or any of the conflicting interests dominating them and the transport of gas from them. Such conflict of interest runs the gamut from those well owners who desire full capacity output regardless of waste or use, to the ultraretardation of output by those pipe line companies which seek thus to keep their lines fully supplied with gas for as long a time as possible. Such latter policy tends to exclusion of other pipe lines, thus to create a monopoly of outlet from such fields as well as the possibilities of discrimination and lack of direct competition in kind at pipe line delivery points.

TRANSPORTATION AND SALE OF NATURAL GAS AFFECTED WITH A PUBLIC INTEREST

By passing the Natural Gas Act of 1938, already referred to, Congress—

* * * declared that the business of transporting and selling natural gas for ultimate distribution to the public is affected with a public interest, and that Federal regulation in matters relating to the transportation of natural gas and the sale thereof in interstate and foreign commerce is necessary in the public interest.

It carries legal implications and duties not theretofore present in the natural gas transportation industry. It subjects those so engaged to a very different set of legal principles and obligations than if they were still regarded as engaged merely in a private industry.

The industry of transporting and selling natural gas in interstate commerce has been legally classed as a utility for less than 2 years. The Federal Power Commission as the regulatory authority has

scarcely had time to set up definite standards, much less has the industry had sufficient time to adjust itself to possibly as yet not fully defined standards of performance, reluctant as it doubtless is to make changes which its managements consider may interfere with their ideas of profits and protection of investment.

This industry has definitely and often frankly held itself as a private business, obtaining and selling its commodity and services in open competition with other fuels in the national markets for fuel. It has been acutely conscious of its vulnerability from excessive development and resulting shortening of the life of its sources of supply on one hand, and, on the other, of its need to obtain for any one pipe line substantially all the market available for natural gas in the localities tributary to its extended pipe lines, in order that minimum costs per unit of transported commodity might be realized to strengthen its competitive position and thus to insure desired profits. It has presumably recognized that without confidence on the part of ultimate consumers of high order of hourly continuity and regulation of service, as well as maintenance of that service for a reasonable period of years in the future, adequate volume of sales at remunerative revenues to justify its high fixed investments to supply a fixed limited area market could not be obtained. An inadequate supply of gas or an inadequate market at normally compensatory rates both mean ruin to the pipe line investment.

A recital of the manner and methods by which the dominant interests in the industry have undertaken to meet its needs may be of interest to this Committee. It may be taken for granted, in view of the many thousands of miles of pipe lines built at costs of hundreds of millions of dollars, of the billions of cubic feet of gas moved thereby from source location where otherwise gross waste of this high form fuel would have been intensified to areas where its delivery meant increased convenience and economy in living and manufacturing to many millions of people, that the industry has performed a useful service to the public. The main interest of this Committee doubtless is in such questions as has this development been uniformly along lines of fair treatment of all interests involved from owners of lands presumably underlain with gas to ultimate consumers, actual and potential. Has the marked tendency of this industry to come under the control of large financially powerful groups because of heavy, long time investments required resulted in dangerous or monopolistic practices or positions?

A recital of a few particular instances of what were regarded by the Federal Trade Commission as representing reprehensible practices follows. These are but a few of the cases appearing in the Commission's report, which are grouped and summarized in part 84-A, which is the Commission's final report with conclusions and recommendations.

Perhaps it is pertinent to remark that some of the specific evils pointed out in that report may not recur now in view of the regulatory supervision provided under the Federal Power Commission and the Securities and Exchange Commission. Other practices may not be reached by existing Federal powers, since an important section of the problems of the industry as affecting public interests arise wholly within State boundaries and jurisdictions.

PRICES AND PRICE SPREADS

With the closely controlled or dominated pipe line situation existing as already outlined, it is not surprising that often in areas of great supply little direct or adequate competition existed for purchased supply. Similarly in many localities, natural gas was available to consumers from but one pipe line system, so that competition in kind was nonexistent. As to each, numerous complaints came to the Commission during its utility investigation. Considerable and quite conclusive testimony appears in the Commission's reports of that investigation, on each of these two points, and the seeming arbitrary or monopolistic practices indulged in by some pipe line companies. As to both purchase and sales prices, these practices were such as could not reasonably have continued if unrestricted competition in natural gas had existed. There was developed no evidence that competition between natural gas and other fuels was not active and free. Natural gas resale prices appeared to be generally set in view of the costs of other suitable fuels available to the consumer purchasing the natural gas.

In fact, of the approximately 1,329 billion cubic feet of natural gas marketed for other than field use and carbon black manufacture, 65 percent was sold to industrial plants either on a strictly competitive basis with the costs to the buyer of using other available fuels or upon the buyer's ability to acquire gas independently because of proximity to production sources.

Much of the gas sold to ultimate consumers supplied by local utility distribution systems was also priced to the purchasing utility on the competitive basis of the cost of its manufactured gas supply for its regular sales. Additional supplies of natural gas were offered at prices which would allow the utility to compete successfully for house heating and industrial business in competition with costs of such service when using other fuels.

It seems well established that very generally natural gas was sold for ultimate consumption at what the traffic would bear which generally meant at prices determined by prevailing prices of equivalent fuel service. Many complaints arose as to prices charged by distributing utilities. Such prices involved important costs of distribution above the fair prices for the natural gas at city gates. Locally added costs are wholly the concern of local regulatory bodies. All prices related to the natural gas industry up to delivery to utility distribution systems must be considered in view of this position universally taken by the industry except where State regulation has been comprehensive.

PURCHASING POLICIES

Acquisition of gas for pipe lines and other purchasers for use or transport and resale is by several methods.

Occasionally and to a limited extent lands presumably underlaid with oil and/or gas are purchased in fee simple.

A second method is to purchase outright the title to the mineral deposits but not the surface land, with rights of access to drill wells and lay suitable collecting pipes, etc., to take off the supply.

The third method is to reserve the right to drill for and withdraw oil or gas, on a down payment as bonus usually of the order of 10 cents to \$1 an acre in undeveloped fields, but higher where there is competition for such reservations, with an annual payment until a well is drilled by the lessee and found productive. Upon completion of a productive well by the lessee the landowner is then compensated for the material withdrawn either by a royalty, usually of one-eighth of the field price applied to the measured output, or is paid a flat price per well per year, with the operator permitted to operate the well much as suits himself.

The fourth method is for the purchaser to contract with the owners of independently owned wells to purchase gas therefrom at a definite price per M cubic feet taken. This price will vary with the location of the well, with its characteristics of flow, the competitive demand for gas in the particular field and the bargaining powers of the parties. In fields in which utility corporations are important producers and purchasers of gas the competitive possibilities of sale by independent producers are nullified by the generally adopted attitude of utility companies not to compete territorially either in purchase or final sale with each other. This was brought out in a number of cases in the Federal Trade Commission report, chapters V and VI, part 84-A.

In the fixing of these terms of acquisition, individual bargaining has been the rule, with the attendant evils bound to appear between sellers, largely ignorant of the possible market values and of the conditions that confront the purchaser as well as helpless to market their gas individually, on the one side and an informed, often the only, buyer represented by a large corporation, anxious to purchase at as favorable terms as possible, on the other.

We quote from the Federal Trade Commission's final report (F. T. C. 84-A; 165-166):

(a) Because some relation must be maintained between the quantity of natural gas contracted for and the market available, the contract may specify the minimum quantity to be taken on an annual basis. Thus the East Ohio Gas Co. attempts to take the full permissible open flow for a total of 183 days in any one year. Perhaps the most common clause of this character provides that the purchasing company shall take all gas produced in winter and a stipulated percent (often one-third or one-half) of the wells' production during the summer months. Frequently no mention is made of the quantity to be purchased and takings are curtailed or increased at the option of the pipe-line company. The absence of such a clause is naturally of advantage to the pipe-line company by giving it absolute control of the production of natural gas. If it also engages in production on its own behalf, it may increase or decrease the production from its own wells at will. The incomes of the producers and landowners are, in turn, directly affected.

(b) Dissatisfaction often arises when producers and landowners feel that their wells are being discriminated against. If the porosity of the sand is so great and location of the company's leases so interspersed through the field as to make possible the withdrawal of gas from underneath adjoining acreages, the gas rights to which are independently owned, dissatisfaction is pronounced and appears to be justified. Instances of this kind have come to the Commission's attention.

WELL PRICES

To determine the reasonableness of prices of natural gas as a heat and energy source for the ultimate user, the first item to be looked at is the price at the wells. The Minerals Yearbook of the United States Bureau of Mines (excerpts for 1934 and 1937 follow) shows an average selling price for the marketable gas at the wells for the entire United States (including the high prices in the eastern area) of 6 cents per M cubic feet for 1934, 5.1 cents for 1937 and 4.9 cents for 1938 (1939 Yearbook, p. 3). These reports (see table 1, herewith p. 36) show that Texas, Oklahoma, and Louisiana in 1934 produced 61 percent of the United States total, or 72 percent of the total produced east of the Rockies, and in 1937, approximately the same percentages, and that the average selling price at the well for this large percentage was 2.7 per M cubic feet in 1934 and 2.5 cents in 1937 (1939 Yearbook, p. 8). Reports on certain natural gas companies in the Commission's utility investigation show instances of royalties based on and paid for at 4 cents per M cubic feet, even some at prices as low as 2 cents per M cubic feet in the Texas Panhandle and 2.3 cents per M cubic feet in Wyoming (F. T. C. 84:2855-2856). The Commission states that the reason for the low Wyoming average is—

Doubtless due to the fact that most of the producing fields are far removed from populous centers having a commercial demand for natural gas, as approximately 80 percent of the gas consumed in the State of Wyoming is for field operations and other industrial uses including the manufacture of carbon black.

The thermally inefficient carbon black manufacture, and natural gasoline stripping plants with subsequent wastage to the air of the dried gas because of lack of market for the dry gas can afford to pay but 1 or 2 cents per thousand cubic feet for natural gas and seek locations where gas is abundant, for which no higher price market exists and where the landowners are willing to realize cash on this resource immediately, even if at such low prices. These prices are purely on a competitive basis as regards available markets and what those industries can pay in view of the market value of their products. When a gas field is adequately opened to other markets by pipe lines, carbon black operators move on to some other isolated field where gas will be available at very low prices. The fact that gas migrates underground sometimes to distant wells aggravates the position of these owners who might wish to conserve their gas and compels them to sell at distress prices.

TABLE 1.—*Natural gas produced in the United States in 1937, percents of United States total, average value at the wells, by States*

State	Quantity		Estimated value at the wells—average per M cubic feet (cents)
	M cubic feet	Percent of total	
Arkansas.....	9,690,000	0.4	6.6
California.....	329,769,000	13.7	6.6
Colorado.....	3,186,000	.1	3.3
Illinois.....	1,040,000	(¹)	8.1
Indiana.....	1,551,000	.1	14.6
Kansas.....	83,890,000	3.5	4.2
Kentucky.....	55,719,000	2.3	12.2
Louisiana.....	315,301,000	13.1	3.4
Michigan.....	9,080,000	.4	9.6
Mississippi.....	13,348,000	.6	4.3
Missouri.....	444,000	(¹)	8.6
Montana.....	24,765,000	1.0	3.7
New Mexico.....	² 46,337,000	1.9	1.5
New York.....	³ 21,325,000	.9	16.0
Ohio.....	42,783,000	1.8	16.0
Oklahoma.....	296,260,000	12.3	2.1
Pennsylvania.....	⁴ 115,928,000	4.8	17.4
South Dakota.....	10,000	(¹)	10.0
Tennessee.....	17,000	(¹)	5.9
Texas.....	⁵ 854,561,000	35.5	2.3
Utah.....	2,366,000	.1	3.3
Washington.....	113,000	(¹)	7.7
West Virginia.....	149,084,000	6.2	12.9
Wyoming.....	31,023,000	1.3	3.2
Total:			
1937.....	2,407,620,000	100.0	5.1
1936.....	2,167,802,000	100.0	5.5

¹ Less than 0.05 percent.² Includes 867,000 M cubic feet piped to Mexico.³ Includes 29,000 M cubic feet piped to Canada.⁴ Includes 49,000 M cubic feet piped to Canada.⁵ Includes 3,923,000 M cubic feet piped to Mexico.

Source: Extract from Natural Gas Chapter of United States Bureau of Mines Minerals Yearbook, 1939 (p. 8).

The table, insofar as the voluntary sources of information available to the United States Bureau of Mines may be relied upon and in view that the average values per State may often arise from individual area prices of wide ranges (as noted above), indicates that in States close to important and well-developed markets for natural gas, well prices are double to triple the national average whereas in States with vast supplies of gas but meager markets, the well head prices are one-half to almost one-fourth the national average.

As in production of all natural resources there are circumstances constantly arising which result in distress price sales. Distress sales in natural gas are intensified by the fugacious character of the resource. On the whole, this table which reflects similar results realized in earlier years, indicates that well prices for gas tend to reach a price in each locality which is sufficient on one hand to induce production and on the other reflects the availability of markets and therefore market competition for the output. Particularly in the eastern fields there are numerous industrial concerns as well as small local utility operators who are located sufficiently near the gas fields to acquire wells and pipe the gas to the places of consumption controlled by them, thus creating a diversity of purchasing demand.

As illustrative of the possible seeming inequities that may arise under the method of acquiring gas by flat annual payments to land-

owners for the right to withdraw gas, usually without restriction as to volume, the Federal Trade Commission found areas in which the Ohio Fuel Gas Co. (of the Columbia system) employed this system under payments of \$50 to \$200 per annum per well drilled. The Hope Natural Gas Co., a Standard Oil Co. subsidiary, employs the same method in West Virginia, and other companies do likewise in the same States and in Kentucky, with a maximum payment sometimes up to \$300 per year.

This method has obvious advantages to the operating gas company in that it reduces accounting labor and disputes with the landowner, eliminates metering expense and permits the operator to withdraw the gas as rapidly as he desires and otherwise manage the well to obtain the gas at the lowest net cost or to his best advantage. The owner has the one single advantage of a definite quarterly or annual payment as long as the lease remains in force. Leases usually are terminable at the will of the operator and will be terminated when the gas yield is unprofitable.

Under such annual lease payments, the actual return per M cubic feet to the landowner for the gas withdrawn depends upon the volume withdrawn. Some owners have testified in complaint that such compensation netted them 5 mills or even less per M cubic feet taken from their land. Such calculations are wholly dependent upon the assumed rate of continuous withdrawal. As usually no accounting of volumes withdrawn is made to the owners, such results must be estimates. The probable accuracy of such estimates may be judged from the following:

Of some 940 new gas wells brought in in 1937-38 in Ohio the average initial full open flow was reported as 450 M cubic feet per day per well. Wells are never permitted to flow full open for long periods because such a practice results in serious final restrictions in gas yields or other expense. The average reported yield in 1937 of the 6,345 producing wells in Ohio was 6,740 M cubic feet per year or 18 M cubic feet per day. Figuring \$100 a year for average initial flow of 450 M cubic feet per day, the gas withdrawn would realize 0.069 cents per M cubic feet or 0.69 mill. Figuring \$100 a year for average yield per well in 1937 of 18 M cubic feet per day, would realize 1.48 cents per M cubic feet.

The probable yields to landowners more likely lie in the range of 1 to 2 cents per M cubic feet over the life of usual leases. This class of price is not directly comparable with the average field or well head prices of 16 cents per M cubic feet as an average in Ohio, for the latter includes not only compensation for the raw material in the ground but the investment costs and risks and operating expenses associated with the drilling and maintenance of the well, borne by the well operator. Nevertheless, it may be assumed that the flat lease payments in many instances represent an advantage to the lessee (the gas operating company) which advantage might be less if owners of lands had the opportunity to sell in an active competitive market for their commodity. Whether the frequently restricted market is a direct result of deliberate policy by powerful interests or primarily a result of the general economic conditions naturally imposed upon this industry, is a problem requiring close balancing of many factors.

The Federal Trade Commission investigation showed that policies tending to restrict competition were observed by powerful interests.

The Commission's record discloses that at the very time when one large system was canceling nearly one-half its leases under reported drop in demand, another system serving nearby and similar areas was charging an increasing price for greater quantities of gas on the theory of scarcity of supply of gas.

CITY GATE PRICES

The Federal Trade Commission's utility investigation presents sample city gate prices of natural gas for many cities by States. (F. T. C. 84-C:13-82.) As might be expected, the variation in these rates is quite wide, and it may be said with fairness that, generally, such gate prices bear no apparent relation to the average levels of well prices plus transmission costs.

Gas trunk pipe lines commonly sell and deliver gas at wholesale to a community gas distribution system for resale by it through a metering and pressure reducing station located close to the city or town border. This point of wholesale delivery and sale is called the "city gate" and the pipe lines billing prices at that point are called "city gate rates" or "city gate prices."

There are instances where the city gate prices appear quite reasonable. This fact seems only to emphasize that, even with some allowances for diverse conditions, the apparently high rates (some existing under similar conditions nearby the low rate cities) would seem to be without adequate justification particularly where the same interests own both pipe line and local distributing companies, except the basis that they were always designed to get the business desired in view of competition from other fuel sources.

However, even in the instances where the city gate rates are low the prices to the consumers sometimes appear high and represent little or no advantage to the general consumer by the use of natural gas.

A peculiar practice exists which coincides with the rule of what the traffic might bear, and secondarily it may be assumed to reflect somewhat a difference in cost of supply due to the load factor of each class of business, namely, that in many instances city gate prices are differentiated and dependent upon the class of customers to which the gas sold by the pipe line company to the distributor is in turn resold by the distributor to the ultimate user. The effect of this is clearly to enable a pipe line company to share in local rates, and to that extent the carrier company becomes a distributor.

CONTRACT PRICES FOR NATURAL GAS DELIVERIES FROM PIPE LINES

Charges for natural gas delivered to large city utilities calculated from firm contracts, which use the two part rate (demand charge plus commodity charge). Influence of total minimum takings per month not included except for Washington, D. C., where the two part rate also has block rates in both sections of the schedule. For Washington, the small minimum of 9,000,000 cubic feet a day is used.

TABLE 2.—*Contract prices for natural-gas deliveries from pipe lines*

Name of company, distance, and field price of gas	At 100 percent load factor		At 70 percent load factor	
	Total charge per M cubic feet delivered	Transportation charge only per M cubic feet per 100 miles (cost of gas deducted)	Total charge per M cubic feet delivered	Transportation charge only per M cubic feet per 100 miles (cost of gas deducted)
Natural Gas Pipe Line Co. of America; 850 miles 24 inch pipe, Gray, Okla., to Joliet, Ill. Cost of gas to pipe line, 9 cents per M cubic feet ¹	Cents 24.45	Cents 1.82	Cents 32.36	Cents 2.75
Missouri River Fuel Corporation; 450 miles 22 inch pipe, Monroe, La., field to St. Louis. Cost of gas 5.5 cents per M cubic feet.....	20.79	3.4	26.23	4.6
Panhandle Eastern Pipe Line Co. and Michigan Gas Transmission Co.; 1,200 miles 24, 22, 20 inch pipe, Panhandle, Tex., to Detroit. Cost of gas 4.5 cents per M cubic feet.....	27.66	1.93	33.25	2.4
Atlantic Seaboard Corporation; 349 miles 20 inch pipe, Boldman, Ky., to Washington, D. C. Cost of gas 20 cents per M cubic feet.....	36.2	4.64	40.5	5.88

¹ This gas was purchased from an affiliate which gathered and compressed the gas and transported it across the Texas-Oklahoma State line. The price does not represent well head prices.

Following the professed attitudes of the pipe lines these prices in the foregoing table probably reflect the influence of—

(1) Competitive cost to the buyer of obtaining similar substitute energy supplies at the localities of delivery and the bargaining powers of the interested parties—free of any public regulation except that Detroit city officials were parties in negotiations as to the prices to be acceptable to those authorities under franchise provisions.

(2) Exigencies of the seller in needing outlets for gas. This particularly applies to the Panhandle Eastern pipe line, which was built lacking firm contracts for reasonable adequate sales of gas and sadly needed the outlet offered by Detroit.

(3) To a less extent, the costs of procuring and transporting the gas, including profit sought, or temporarily acceptable, on the investments in the pipe lines, which vary per unit of capacity to deliver gas. Smaller pipe, other things being equivalent, would result in higher costs per M cubic feet.

The field prices of gas quoted are those shown in the Federal Trade Commission investigation (1933-35) as charged to the pipe line when all gas was purchased, and the prices paid for those portions of gas purchased when part was produced and part was purchased. Generally these prices include costs of gathering as well as well-head prices, and in some cases compression for delivery to the pipe line. They generally should be expected to be above the commonly quoted well-head prices in the fields.

When gas was purchased from producing affiliates or subsidiaries at prices representing profits to such subsidiaries, it is conceivable that in

extreme cases the final price for deliveries from the pipe line might be shaded somewhat in view of profit taken on gas production, which if a real factor in the final price, would mean that transportation revenue obtained by difference between cost of gas entering pipe and delivered price would be too small. This, however, on the long lines, could represent but some minor fraction of 1 cent per M cubic feet moved 100 miles.

Contracts for Chicago deliveries originally contemplated minimum deliveries of 130,000,000 cubic feet per day. Contracts for Detroit are based on 90,000,000 cubic feet per day maximum delivery. Contracts for Washington, D. C., deliveries have a minimum of 9,000,000 cubic feet per day. Contracts for St. Louis contemplated maximum aggregate takings of 58,000,000 cubic feet per day by LaClede Gas Light Co. Identical terms were in contracts for deliveries to the St. Louis County Gas Co., except no maximum or minimum quantities were stated. Actual average revenue per M cubic feet sold will vary under the schedules according to the load factor resulting from conditions each month.

The prices set up in the contracts may or may not represent profit to the pipe line company. While the load factor under which deliveries are made markedly affects the average delivered price per M cubic feet, essentially the same contribution to the capital costs is made under such type of schedule for each M cubic feet delivered. But the rate of profit of the pipe line depends upon the total volume of sales.

Thus one-half the capacity of the line sold at the relatively high average price represented by the rate calculated for 50 percent load factor would yield far less annual profit on the pipe line investment than if the entire capacity of the line were utilized at 100 percent load factor with the resultant much smaller average price per M cubic feet delivered.

Pipe lines are built only after careful calculations of what volumes of gas may probably be sold at prices that will on such volume of sales yield a satisfactory profit above all probable operating expenses, taxes, and amortization of the investment. The volume of sales possible depends in part on the price at which the gas can be offered and in part upon the volume as well as substitute costs of fuel demands of the existing or likely to be attracted consumers; while the costs of delivery per M cubic feet are less the larger the volumes that can be delivered at good load factors through a given line up to its most economical total capacity.

When once a pipe line has been built designed to most economically meet the probable utilizations of a district, any factor which reduces the volume of gas to be delivered has a disastrous effect upon the profits of the investment in the pipe line. But greatly increased volumes cannot be supplied without corresponding new investment. The pipe line has to take its chances on changes in the business cycle, in the character and number of the business enterprises to operate in its field of deliveries and in the changing prices of other fuels. It has little or no control of such factors. But threat of competition from another pipe line which, if its own plans were sound, merely means dividing the market upon which the first investment was predicated, is a factor which possibly can be directly affected by the exertions of the owners of the installed line and since it means economic life or death, any means to prevent death will be adopted.

The contracts appear to indicate that projectors of large pipe lines consider the costs of transport of gas as in the general range of 2.5 to 5 cents per M cubic feet moved 100 miles at the excellent load factor of 70 percent obtainable generally by combining general utility deliveries with large volumes of industrial sales. The fact that a utility as a purchaser of natural gas plans to maintain sources of manufactured gas in service or quick stand-by status is favorable to the maintenance of a good load factor on the pipe line, for such manufactured gas equipment may then be used to carry a sizable portion of the extreme peak demands which arise during sudden spells of cold weather in many gas utility systems.

It may be of interest to emphasize that the city gate price for regular supplies of natural gas to Detroit was reached as a result of conferences between representatives of the city, the local gas utility and the pipe line company. A prominent city official has stated that the pipe line company practically adopted as its city gate charge what the city representatives had figured out sometime previously as a price to be justified by the costs involved in bringing the gas to Detroit. From that standpoint, the Detroit city gate rate and units derived therefrom represent a standard of moderate charges for natural gas when delivered through a large capacity pipe line with the investment and other charges allowed by the city officials. Sufficient data were not presented to permit of an assertion here that such rates can be fairly transferred to operations of other pipe lines of different capacities and installed under differing cost conditions, that amortization was adequately provided for or the risk factor in possible failure or diversion of the supply of gas or other conditions sufficiently allowed for. What is known is that the Panhandle Eastern had an investment with no adequate utilization in prospect without taking on the Detroit business and that reports made by that company for 1937 and 1938 during which years deliveries to Detroit were normal, indicate it made a living profit, meeting all its current obligations and having a substantial addition to surplus. The income account shows a possibly inadequate allowance for depreciation and retirement of the investment, such provision being of the order of retiring the investment in about 30 years whereas conservative industrial promoters of such projects consider 20 years a maximum for recovery of investment because of probable failure of the required gas supply available to a project.

PRICES TO ULTIMATE CONSUMERS

Comparisons might be made between city gate prices of natural gas and the final prices paid by consumers attached to local utility distribution systems. These spreads are often considerable but they are purely within the purview of local and State regulatory bodies. However, it may be pointed out that the level of the city gate price or prices has a double influence upon ultimate local utility pricing policies and the resultant charges to consumers. A high gate rate tends to restrict the profitableness of sales by the local utility to large consumers who buy strictly on a competitive basis requiring a disproportionate loading of cost upon, or at best little benefit available to lower rates to, smaller consumers who buy largely on a convenience basis. Lowering a city gate rate makes possible an increase in profits

from competitive sales, which profits under regulation may be used to reduce small consumer rates, which in turn tend to induce greater use, with resultant lower unit costs.

Thus the relative level of the city gate price not only is carried in direct relation to the great majority of utility customers but may also impose a distortion up or down because of the effect of such city gate levels upon the profits derivable from more directly competitive sales. There is also the general effect upon the community's level of manufacturing and living costs. It is primarily for these reasons that the determination of reasonable city gate rates by the Federal Power Commission for natural gas supplied by interstate pipe lines should be of distinct public benefit.

Since many people are interested by recital of spreads between costs of production, wholesale rates and prices to ultimate consumers, some facts revealed in the Federal Trade Commission's investigation along these lines are here given. A determination of fair prices was not a primary function of its investigation; all the facts related to the prices in force and recorded in the Commission reports, are not available. Without a full and balanced review of all the facts affecting any quoted rate or spread in rates, caution should be exercised in making deductions.

United Gas Public Service Co.—This company is the major operating and distributing company in Electric Bond & Share Co.'s United Gas Co. Texas, Louisiana, and Mississippi systems. With an average total operating cost of 6.2 cents per M cubic feet sold, including taxes and depreciation but not capital return, this company in 1934 sold 1.3 percent of its entire sales volume to residential customers at 85.9 cents and six-tenths of 1 percent of its sales volume to commercial customers at 57.6 cents per M cubic feet (F. T. C. 83: 1979-1980). In that year, 97.9 percent of its entire volume of sales went to industrial, other pipe lines and other utility consumers and distributors at prices which represented an average revenue per M cubic feet of all gas sold of 9.1 cents and leaving for profit on investment 2.9 cents per M cubic feet. Naturally any inferences as to the fairness of the spread between an average operating cost of 6.2 cents, a resultant of great sales under wholesale delivery conditions, with the ultimate domestic consumer revenue is bound to be precarious as to the value of the comparison. City gate revenues from nonaffiliated utility distributors averaged 13 cents per M cubic feet for 6.9 percent of total volume of sales. Gas was purchased from nonaffiliated sources at an average of 4.3 cents per M cubic feet to provide 33.9 percent of the total supply.

Kansas City Gas Co.—This company is a wholly owned subsidiary in the Cities Service Co. system and is one of the principal customers of the Cities Service's pipe line company. Cities Service Gas Co. in 1931 charged Kansas City Gas Co. 29.4 cents per M cubic feet for natural gas, and the latter in turn received from all classes of customers in 1931 an average of 51.5 cents per M cubic feet. The over-all average net was 7.0 cents per M cubic feet to Kansas City Gas Co. Cities Service Gas Co. realized a net of 8.7 cents on its pipe line sales to Kansas City Gas Co., or a total of 15.7 cents per M cubic feet net to the Cities Service system (F. T. C. 67: 597, 1092). Twenty-nine percent of the gas supply of Cities Service Gas Co. was purchased at an average of 9.4 cents per M cubic feet.

Pennsylvania and New York.—In northern Pennsylvania and in south central, central, and western New York, the markets are frequently only short distances from the gas wells. Here the well owners receive a somewhat substantial compensation for their gas. In 1937, the average value at wells was reported as 17.4 cents in Pennsylvania and 16 cents in New York. The State of New York geologist stated that the average price for several years preceding 1933 had been 30 cents. By Federal Trade Commission 84-C, pages 102-103, smaller consumers pay for ordinarily used amounts from 50.1 cents to \$2.25 per M cubic feet, quite frequently \$1 or less per M cubic feet. By Federal Trade Commission 84-C, pages 50-51, city gate prices ranged from 25 to 52 cents with 40 to 50 cents per M cubic feet common. Approximately 60 percent of the natural gas consumed in New York State is produced in Pennsylvania or other States.

Williamsport, Pa., and Saginaw, Mich.—Two rather extreme instances were brought out during the Commission's hearings, which are not included in its volume 84-C, above quoted from. These refer to Williamsport, Pa., and Saginaw, Mich. (F. T. C. 84-A: 592 and 593). The Commission states as follows in its final report:

Williamsport, Pa., has a top domestic rate of \$2.70 for natural gas, although within less than a hundred miles of its source of supply. Saginaw, Mich., has a top domestic rate of \$1.87 for natural gas and is likewise within a hundred miles of its source of supply.

Effective March 1938 Saginaw's rate for the first 1,000 cubic feet was \$1.25. The Saginaw, Mich., supply is wholly an intrastate business, under regulation of the public service commission of that State.

Texas towns.—The 1936 report of the gas utilities division of the Railroad Commission of Texas (opposite p. 23), gives "Monthly billings for selected customers" of the 716 towns, all but about 40 of less than 10,000 population and 660 less than 5,000 population, in Texas served by natural gas, under rate schedules effective as of December 31, 1936.

With a few exceptions all have a minimum charge of from \$1 to \$2. For the 716 towns served, the average net billings for the first M cubic feet was \$1.41; for 2 M cubic feet \$1.02 per M cubic feet; for 3 M cubic feet 90 cents per M cubic feet; for 5 M cubic feet 80 cents per M cubic feet; and for 10 M cubic feet 71 cents per M cubic feet. There are numerous communities close to the gas fields, in which the retail price of gas is 25 to 50 cents per M cubic feet subject to a minimum bill of \$1 a month or more.

Four to five cents per M cubic feet at the well head appears to be a common price for gas sold to pipe lines in Texas (F. T. C. 84: 557; 83: 1979).

City gate prices as recorded in Federal Trade Commission 84-C for Texas communities therein listed ranged from 5 to 40 cents as a top price for gas to be resold to domestic consumers. Not infrequently 25 and 30 cents as gate price for resale to domestic consumers appears. Average revenue from sales made by United Gas Public Service Co. to nonaffiliated redistributors for all classes of consumption was 13 cents and by Lone Star Gas Co. about 26 cents per M cubic feet.

Some communities in Texas are very close to adequately producing gas fields or petroleum operations with gas as a byproduct to sell. Others must depend for adequate supplies of gas upon pipe lines tapping important gas fields some hundreds of miles distant. Extreme variations result. All local prices are subject to review by the State railroad commission which maintains a considerable natural gas division. There are numerous ownerships of gas collecting and distributing companies in the great State of Texas.

See also the discussion relating to Colorado-Wyoming pipe line. See Ex. 12.

PIPE LINE PROFITS

The commission's investigation was made in the middepression years (1930-34) and at a time when several of the longer lines were still in the infancy of their operations as to profitable development of sales, etc., and for such reasons were not in normal operation as to loads and markets. Under the Natural Gas Act of 1938 the Federal Power Commission now has on its docket investigations of certain gas pipe line companies which will disclose recent revenues, expenses, costs, profits, etc., as affected by the increases in consumption, better utilization of capacity of the pipe lines, stabilization of operations, etc., since 1934.

The Commission's final report (F. T. C. 84-A, ch. IX) contains data for the years 1930-34 on income (pp. 465-467, 493), expenses (pp. 471-473), direct transmission costs (pp. 483-485), operating profits (pp. 491-495), and returns on investment (pp. 513-517) of certain transmission companies, and sets out examples of field or well-head prices (pp. 132-133, 198-208), operating expenses and capital charges in transmission (pp. 141-145), income per unit of gas sold (pp. 454-455), and of city gate rates and prices to consumers in a separate volume (F. T. C. 84-C: 13-126). Exhibits 10 and 11 herewith present summaries of operating data and results for 11 companies, and price data, as therein shown, for 7 natural gas pipe line systems included within the 4 most important pipe line groups.

IMPORTANT FEATURES OF PARTICULAR GAS PIPE LINES

From the Commission's reports on natural gas pipe line companies, the following important companies illustrate the complex problems of the natural gas pipe line business.

Natural Gas Pipe Line Co. of America.—The history and operations of the Natural Gas Pipe Line Co. of America present an important illustration of the circumstances that have led to the construction of several of the important interstate natural gas pipe lines. This pipe line system, including the gathering lines in Texas, represented at the end of 1931 an investment of nearly \$69,000,000 (F. T. C. No. 62, p. 397). Its organization illustrates the complicated intercorporate relationships, defined in detail by elaborate contracts copied in F. T. C. Utility Corporations Report 62: 436-486.

Many of the aggressive petroleum companies acquired acreage in the great Amarillo oil and gas field of the Texas Panhandle. A portion of this field yields both gas and petroleum. Extensive exploratory drilling demonstrated that the major part of the field would yield only gas. Therefore, the petroleum companies sought more remunerative markets for the gas than were present in gasoline stripping

plants (with subsequent wasting of from 97 to 98 percent of the natural gas treated to the air) and carbon black plants (which wasted to the air 90 percent or more of the heating value of the gas) which industries would pay but 1 or 2 cents per M cubic feet.

The principal markets in which the gas might find a sale at better prices were in the distant large cities such as Denver, Chicago, Minneapolis, Milwaukee, Indianapolis, Detroit, etc. The construction of gas pipe lines to such distant points required large investments, of the order of \$30,000 to \$40,000 or more per mile, which for 500 to 1,000 mile lines represented \$15,000,000 to \$40,000,000 or more. The market to be obtained was primarily by the substitution of natural gas for manufactured gas distributed by the gas utilities and in substitution of natural gas for coal used by large industries and to some extent in house heating. The utilities commanded the market in which convenience in use to hosts of relatively small users permitted a relatively remunerative selling price while industrial sales were only to be acquired in most cases by meeting or even undercutting other fuel costs.

Neither the city utilities commanding but part of the market requisite to justify the investment in a pipe line nor the oil companies commanding vast supplies of gas were willing to exclusively assume the risks of a pipe line to such distant points. In the view of the various organizations, the pipe line investment could only safely be made by having as vitally interested therein both responsible supplies of gas and responsible marketers of gas.

Because of some earlier difficulties with the State of Texas, Standard Oil Co. (New Jersey) was not licensed to operate or own property in Texas but it had available large funds. Moreover, Standard Oil Co. (New Jersey) had contracts for gas (which could be diverted) with Canadian River Gas Co., a large gas leaseholder and gas producer in the Amarillo field. Skelly Oil Co., The Texas Co. of Delaware, Phillips Petroleum Co., Columbian Carbon Co., Southwestern Development Co., and Cities Service Co. all held directly or through subsidiaries gas leases and owned gas wells in the Panhandle of Texas which were without adequate markets.

The Insull interests, including Insull, Son & Co., controlled the entire gas utility markets in the greater Chicago area of northern Illinois and were apparently willing to substitute natural gas in large part but not wholly for the manufactured gas sold by Peoples Gas Light & Coke Co. (serving the city of Chicago), by the Public Service Co. of Northern Illinois, and by the Western United Gas & Electric Co. serving an extended area about Chicago.

Cities Service Co., besides being owner of gas properties in the Amarillo field, also owned and operated various natural gas producing, transporting, and distribution systems in Oklahoma, Kansas, and Missouri, and doubtless had an interest in seeing that the projected line to Chicago did not invade its operated territory.

In 1930 all the above named companies caused to be organized the Continental Construction Co., which name was somewhat later changed to Natural Gas Pipe Line Co. of America. Each interested company contributed the funds required to construct the pipe line from Gray, Okla., to near Joliet, Ill., in different proportion ranging from 2.3 to 25 percent. Somewhat later Skelly Oil Co. and Phillips Petroleum Co. sold their holdings to others of the group and Insull, Son & Co. transferred its holdings to Natural Gas Investment Co., a

subsidiary indirectly of Peoples Gas Light & Coke Co., so that holdings ranged from 2.53 percent by Columbian Carbon Co. to 26.63 percent each by Cities Service Co. and Natural Gas Investment Co. with Standard Oil Co. (New Jersey) and Southwestern Development Co. each holding 13.31 percent and The Texas Co. the remainder of 17.58 percent (nearest hundredths).

Since Natural Gas Pipe Line Co. of America was not expected to own or operate gas wells but was purely a transporting and marketing at wholesale project, the supply of gas was provided by the organization of Texoma Natural Gas Co. to operate in Texas to which all the above named groups except Standard Oil Co. subscribed. To this company the several petroleum and carbon companies transferred gas leases and gas wells. A compressor station and 85 miles of 24-inch transmission lines were built from Fritch station in Texas to Gray in Oklahoma. Standard Oil Co. contracted to cause Colorado Interstate Gas Co. to have Canadian River Gas Co. deliver to National Gas Pipe Line Co. of America at its Gray, Oklahoma, receiving station, 25 percent of its natural gas requirements, utilizing therefor a special pipe extension to Fritch, Tex., owned by Canadian River Gas Co. about 3 miles long, costing \$45,163, and this latter company contracting with Texoma Natural Gas Co. to transport that gas through the Texoma pipe line and deliver the gas at Gray under 600 pounds pressure, if so demanded. This gas was to be priced to Natural Gas Pipe Line of America on a sliding scale ranging from 5 cents down to $3\frac{3}{4}$ cents per M cubic feet plus 0.6 cents per M cubic feet for compression service if required, for delivery under 150 pounds pressure at Fritch station (Texas).

The accountants' reports show that Canadian River Gas Co. received from Colorado Interstate Gas Co. in 1932 and 1933 for gas delivered to Fritch station, 4.95 cents per M cubic feet. The Natural Gas Pipe Line Co. of America paid Colorado Interstate for that gas received by it under some hundreds of pounds pressure at Gray, Okla. (85 miles northeast of Fritch) 8.05 cents per M cubic feet (standard measurement conditions) at the same time when it paid to Texoma Natural Gas Co. 10.1 cents per M cubic feet, which were the latter's costs, including 6 percent on the investment.

The 8.05 cents per M cubic feet at Gray included a transportation-compression charge of 1.4 cents per M cubic feet paid through Colorado Interstate and Canadian River Gas Cos. to the Texoma Co. There was, therefore, a possible gross mark-up above identified costs of about 1.7 cents per M cubic feet for the benefit of Colorado Interstate Gas Co. Yet this price of 8.05 cents delivered at Fritch was considerably less than the Texoma Co. delivered 75 per cent of the supply of gas, calculated with not over 6 percent return on capital in the form of indebtedness. This average price of 8.05 cents was influenced by a considerable quantity (about 25 percent of the total volume) of gas sold for resale as boiler fuel and dump industrial use at 3.5 and 4 cents per M cubic feet delivered at Gray, Okla.

Natural Gas Pipe Line Co. of America resold 23,478,613,000 cubic feet for delivery to the former Insull utilities near Chicago at an average for the year ending June 30, 1933, of 22.84 cents per M cubic feet. The contracts for regular deliveries would have figured out at 70 percent load factor a price of 32.36 cents per M cubic feet. But supplemental agreements provided for the coincidental delivery of large quantities of gas, because of lack of expected regular business, to be sold at special prices for boiler fuel and dump industrial service;

which reduced the average revenue per M cubic feet sold to both the utility and the pipe line. There were also initial concessions from the contract prices during the load building period which extended through 1932-33.

To a small utility in Glasco, Kans., which purchased 6,010,000 cubic feet for the year, the average price was 40 cents per M cubic feet and to a cement company at Linwood, Iowa, at 10 cents per M cubic feet. These figures show the extremes of average annual charges made by this pipe line (F. T. C. 62: 420).

The market in and about Chicago was expected to take substantially the entire capacity of the pipe line. Original contracts contemplated growth of consumption to such a volume that the pipe line might have to be duplicated, that is, with two lines of 24-inch pipe instead of the single line originally constructed and capable of delivering up to 175,000,000 cubic feet per 24 hours.

The average revenue received by the pipe line, in contrast with any specific price charged at some one place or to one customer, being a composite of prices made in competition with final costs to users of other available fuels, cannot be used as a basis of judgment as to the equity of any particular price though it may have some use in deciding whether detailed investigation as to the reasonable necessity of the existing distribution of the burden of cost of service should be undertaken or when related to the total profits, to what extent average changes might be made.

The Natural Gas Pipe Line Co. of America sold some gas en route. For all of these sales which moved a lesser distance, the prices netted higher than at the Chicago gate. The Iowa Power & Light paid 28 cents per M cubic feet and the United Gas Service Co., which took delivery in Kansas (slightly over 300 miles from the wells), paid 40 cents per M cubic feet (F. T. C. 62: 420) for 6,010,000 cubic feet.

A complaint of the Illinois Commerce Commission is now before the Federal Power Commission, for reduction of city gate charges made by Natural Gas Pipe Line Co. of America to Chicago area and Illinois communities.

Northern Natural Gas Co.—This is a natural gas trunk pipe line and holding company system which has a trunk pipe line from Texas to the Twin Cities, jointly owned by Lone Star Gas Corporation, the United Light & Railways Co. (Eaton-Scaddelee group) and North American Co. through its North American Light & Power Co. (F. T. C. 50: 453). The proportion of holdings for each group are 30 percent, 35 percent, and 35 percent, respectively.

Average revenues, operating costs and net realized per M cubic feet sold and return on employed capital follows (F. T. C. 83: 2695) and (F. T. C. 81: 428) for the mid-depression years:

Years	Sales in M cubic feet	Overall average in cents per M cubic feet			
		Revenues	Costs and expenses	Profits	Rate of profit on average capital employed (percent)
1932.....	16, 789, 383	21. 876	15. 642	6. 234	2. 97
1933.....	23, 420, 694	21. 492	14. 276	7. 216	4. 76
1934 (7 months).....	16, 376, 622	21. 769	12. 398	9. 371	4. 10

This company also has the practice of charging prices, based on the classes of customers to whom the gas bought from it is to be resold. An analysis of such sales shows a wide variation of price between such classes (F. T. C. 81: 378-403).

During the 7-month period January 1 to July 31, 1934, Northern Natural Gas Co. sold from its main lines to industrial concerns at 15.4 cents per M cubic feet while the average price at farm taps were 77.4 cents or five times the price to industrial users. The average price charged its affiliated companies at city gates for natural gas resold to industrial users was 16.6 cents per M cubic feet while the average city gate price for the gas ultimately sold to domestic and commercial users was 30.7 cents or almost twice as much.

Colorado Interstate Gas Co.—In this pipe line company Standard Oil Co. (New Jersey) and Southwestern Development Co., each hold 42½ percent of the stock, and Cities Service Co. holds the remaining minority interest (15 percent). This company was included in the Commission's Utilities Investigation (F. T. C. 82: 594-714). This report reveals (F. T. C. 82: 650-671) that this company sold gas at prices ranging from 7.32 cents to the Natural Gas Pipe Line Co. of America which amounted to 21 percent of total sales volume, to city gates prices of 36+ cents per M cubic feet for 2.7 percent of total sales volume.

A cement plant, operating only during the warmer months of the year, paid 10 cents per M cubic feet and accounted for 3.7 percent of the volume. The city gate rate for resale in Denver received by Colorado Interstate Gas Co. averaged 32.2 cents per M cubic feet in 1932-33-34. An illustration of what a natural gas distributing company which has a joint voice in the control of the supplying pipe line company can and does do in price spreads to the consumer is the situation in Denver, as shown in a recent case before the Securities and Exchange Commission (in the matter of the Public Service Co. of Colorado, File No. 43-195). In Denver the rates to the consumers are based in part on the city gate rates made in a contract between the distributing Public Service Co. of Colorado (of the Cities Service System) and the Colorado Interstate Gas Co. (the pipe line company).

The Public Service Co. of Colorado has remodeled its manufactured gas production plant and keeps it in condition for prompt operation as a guaranty of service in case of a break in the single natural gas pipe line or in case it should fail to deliver sufficient gas. This plant has had to be operated because of disastrous washouts along the gas pipe line. The costs of this reserve equipment are included in the rates for distributed gas. The result appears in the following rates for natural gas: \$1.50 per M cubic feet for the first 2 M cubic feet, 75 cents per M cubic feet if 10 M cubic feet are used, and a minimum of 42 cents per M cubic feet for all quantities in excess of 10 M cubic feet. These local prices were subject to a franchise agreement and are subject to revision by the State public utilities commission. Insofar as they are affected by the city gate rate for natural gas, they now depend in part upon findings of the Federal Power Commission as to the proper city gate price. These prices are charged in a city 400 miles from the producing area.

Colorado Springs, Colo., operated a municipally owned manufactured gas plant for several years preceding 1931 when it began to

purchase from Colorado Interstate Gas Co. natural gas for distribution in the local system. In Denver and environs a similar situation existed under private ownership.

In 1938, the residential natural gas rates in the two cities were as follows:

	Colorado Springs municipal	Denver private
For first 400 cubic feet or less per month (net).....	\$0. 75	\$0. 90
For next 600 cubic feet or less per month (per M cubic feet).....	1. 50	1. 50
For next 1,000 cubic feet or less per month (per M cubic feet).....	1. 20	1. 20
For next 1,000 cubic feet or less per month (per M cubic feet).....	. 75	. 75
For next 7,000 cubic feet or less per month (per M cubic feet).....	. 52	. 52
All over 10,000 cubic feet or less per month (per M cubic feet).....	. 42	. 42

In 1938, the city of Colorado Springs reported gas sales at average revenues of \$0.645 per M cubic feet, with cost of purchased gas at 30.96 cents per M cubic feet purchased or 35.9 cents per M cubic feet sold, with a resulting gross income after depreciation and allowances for taxes but before interest charges, of \$46,725 which equalled 5.95 percent return on the book cost of the gas system or 6.68 percent on the cost depreciated. This profit of \$46,725 was equal to 10.5 cents profit per M cubic feet sold. The total volume sold was 445,085,400 cubic feet for the year 1938.

The \$46,725 profit was after deduction of a special allowance of \$13,600 to amortize gas manufacturing equipment made obsolete by the introduction of natural gas.

The Colorado Interstate transports the gas 340 miles to the environs of Denver and then sells it to a wholly owned subsidiary of the Cities Service, The Colorado Wyoming Gas Co., at 17 cents. This subsidiary then transports it through a 6-inch pipe line, 115 miles further, and sells it at Cheyenne to another wholly owned Cities Service subsidiary at 42 cents per M cubic feet. It may be noted that the average rate of 17 cents per M cubic feet to the Wyoming pipe line is scarcely one-half the average city gate rate for redistribution in Denver and environs. Colorado-Wyoming gas pipe line passes through or near several small natural gas producing fields on its way to Cheyenne. Certain communities served by Public Service Co. of Colorado north of Denver are supplied from this 6-inch line. No reason unless it is the potential competition from the otherwise owned gas fields is surmised for these differences in prices. The question is now before the Federal Power Commission for determination. This company also has the practice of charging greatly differing prices based on classes of customers who become the ultimate consumers.

Lone Star Gas Corporation.—This is a top holding company controlling or holding substantial interests in natural gas trunk pipe lines, natural gas producing properties and gas distributing companies. Most of its owned properties are in north-central Texas and southwestern Oklahoma. It controls small manufactured gas plants in Idaho, Oregon, and Washington and a manufactured gas system in Council Bluffs, Iowa, changed to distribution of natural gas after the construction of the Northern Natural Gas Co.'s pipe line. Because Lone Star Gas Corporation controlled gas fields in Texas and was

interested in the Council Bluffs gas situation, it became a 30-percent share owner in the Northern Natural Gas Co. upon its organization. The system owned, in 1934, 4,145 miles of main gas pipe line of 2-inch to 24-inch diameter.

This system is primarily one engaged in production for local distribution in Texas and Oklahoma, which expanded its pipe line system to reach new gas fields in Texas and Oklahoma as demands for gas grew and older fields approached exhaustion. In this extension for new supplies, a pipe line was built into the Amarillo field in the Texas Panhandle by a route which crossed the extreme southwestern corner of Oklahoma, making that line interstate. The main purpose of this line was to bring gas into the Fort Worth-Dallas distribution area. In 1933-34, this particular line supplied something less than 25 percent of the total natural gas acquired by that system. The system has six other lines crossing the boundary between Texas and Oklahoma.

In 1934, the system purchased over two-thirds of its supply from nonaffiliates, many of them producers of petroleum. Purchases and production are established on a pro rata basis. Purchases as well as sales are made in both Texas and Oklahoma.

The Lone Star Gas Corporation was organized and has been continuously controlled by personnel which have also been dominant or powerful in the Columbia Gas & Electric Corporation, viz, George W. Crawford (now deceased) and family and associates (F. T. C. 80: 12, 14, 53, 57-60). There is no record of direct intercorporate holdings of stock.

In 1934, this system paid an average of 5.75 cents per M cubic feet purchased. Sales of natural gas produced average revenue of 79.4 cents per M cubic feet from domestic consumers, 16.8 cents from industrial consumers, 26.0 cents from city gate sales to other distributors, and miscellaneous class sales at 10.8 cents to average 43.4 cents per M cubic feet for all gas sold (F. T. C. 80: 67).

In this system there were found important write-ups of fixed capital, in part justified by earlier practices of not including in recorded book fixed capital expenditures for drilling wells, construction of field gathering lines and interest and other overheads during construction (F. T. C. 80: 119).

Excluding all the capital write-ups found, justifiable or not, the return on recorded invested capital of the consolidated system was of the order of 12 to 15 percent annually in several years preceding 1930, which dropped to about 6.5 percent in 1933, 1934, before payment of Federal income taxes (F. T. C. 80: 124). The Federal Trade Commission has no earnings for the more recent years.

The local rates of this system are subject to review by State Commissions. The corporation has on occasion taken advantage of its interstate interchange of gas to deny regulation of its city gate rates.

It operates in a field in which lines of the United Gas System (Electric Bond & Share group) and smaller independent gatherers and distributors of gas operate. There is no known open competition but outside of the utility distribution systems there is a potential competition for industrial business in certain localities.

Mississippi River Fuel Co.—This pipe line company purchases natural gas in the gas fields of Northern Louisiana and transports it through a 22-inch pipe line to St. Louis and at a number of points along its line. The gas is sold at wholesale to utility companies.

The Commission's final report on the Utility Corporations (F. T. C. 84-A: 238) states:

Originally, this pipe line was a joint venture of Standard Oil Co. (New Jersey), Columbian Carbon Co., United Carbon Co., Electric Power & Light Corporation, Moody-Seagraves Co., and Palmer Corporation of Louisiana. Later, Electric Power & Light Corporation purchased the interests of Palmer Corporation of Louisiana and Moody-Seagraves Co., and vested these, together with its own interest, in its newly created subsidiary, United Gas Corporation. During the period 1930 to 1934, the associated interests in this venture were as follows:

	<i>Percent</i>
Standard Oil Co. (New Jersey)-----	22.5
Columbian Carbon Co.-----	17.1
United Carbon Co.-----	13.1
United Gas Corporation-----	46.9
Total-----	100.00

The Standard Oil Co. (New Jersey) interests operated the company.

At the end of 1934 the total assets of the company were approximately \$22,346,000, of which about \$21,257,000 represented investment in the pipe line and in Richland Compressing Station, Inc. The capital liabilities consisted of: Common stock, \$6,522,300; first mortgage 6 percent bonds, \$11,793,000; and notes payable of \$2,285,000 (F. T. C. 82:740).

For the 4 years 1931-34 the rate of profit on the average capital employed ranged from 2.73 percent in 1932 to 4.47 percent in 1934. These earnings were insufficient to meet interest payments on the 6 percent bonds and borrowed money in each year of the period 1931-34. This situation was apparently due to the fact that this pipe-line company had not been able to develop a paying load factor, as the average operating cost of transporting 1,000 cubic feet of gas in 1934 was only 1.81½ cents per 100 miles (F. T. C. 82:732). For that year the average revenue from the sale of natural gas was 17.39 cents per 1,000 cubic feet, the total cost of the operation of their pipe line was 14.08 cents, and the net operating profit 3.31 cents per 1,000 cubic feet (F. T. C. 82:834). As stated above, the rate of return on the average capital employed in this pipe line was 4.47 percent in 1934.

The average M cubic feet price at which this company sold natural gas for the period 1929-34, for distribution on firm contracts, was 27.14 cents. On the other hand, the average sale price for that sold on cancelable contracts for the period 1929-34 was 12.35 cents. The average delivered price for gas sold to industrial consumers on firm contracts for the period 1929-34 was 23.43 cents, on cancelable contracts 12.13 cents, and on off-peak contracts 24 cents.

The divergence in prices in 1934 to industrial customers ranged as follows: Average prices to 34 industrials ranged from 6 cents per M cubic feet, for gas delivered to an industrial customer near the gas field, up to 34.27 cents per M cubic feet, for an average of 25.40 cents on firm contracts. Among 6 utility customers, the average prices ranged from 17.65 cents for the largest customer (made up of firm contract deliveries at an average of 22.46 cents and cancelable deliveries at 11.89 cents largely for use in firing coke ovens and steam boilers) to 41.78 cents per M cubic feet (F. T. C. 82:834, 836, 837), all under firm contracts, practically all for delivery to domestic consumers. This is one of the problems confronting the Federal Power Commission in its regulation of pipe lines.

Southern Natural Gas Corporation.—Southern Natural Gas Corporation operates the larger of two natural gas pipe lines reaching the Southeastern States. Its line extends from the Louisiana gas fields to Atlanta and Macon, Ga. There are numerous short branches from the main line to points along the line. Southern Natural Gas Corporation has no natural gas production, but depends upon long term contracts with natural gas producing companies for its supply.

As at December 31, 1934, the recorded ledger value of the fixed capital of Southern Natural Gas Corporation was \$32,894,029.56, of which the valuation placed on natural gas contracts was \$2,618,150. This item represented the only write-up of fixed capital for which no consideration was paid. At that same date, the ledger value of the company's capital stock was \$8,848,765; first mortgage bonds aggregated \$15,310,500, advances from affiliated companies totaled \$2,642,905.99 and there were outstanding \$8,794,000 of 6 percent debentures (F. T. C. 77:309).

During the 4-year period 1931–34, this company paid from 3½ to about 4½ cents with a 4-year average of 4.167 cents per M cubic feet for all of the natural gas it purchased. For the same 4 years, its operating cost of transmission, including estimated adequate depreciation, was 2.8626 cents per M cubic feet per 100 miles (F. T. C. 77:515). With 6 percent return on capital invested allowed, the final price was estimated to be 6.40 cents per M cubic feet per 100 miles. The average delivered operating cost of all gas sold in 1934, including inadequate depreciation, was 11.02 cents per M cubic feet. However, if adequate depreciation had been charged by the company, the delivered cost for 1934 would have been 14.483 cents per M cubic feet. The average revenue per M cubic feet for 1934 was 22.18 cents, which on the basis of adequate depreciation would have given a net operating profit of about 7.7 cents per M cubic feet (F. T. C. 77:646).

Southern Natural Gas Corporation, like other new natural gas pipe line ventures, which began operations in 1930 and 1931, did not develop the business expected for a number of years. Had the company allowed the depreciation estimated by Ford, Bacon & Davis as adequate, its return on the total capital employed in its business would have averaged 3.08 percent for the 4-year period 1931–34. The rate of return for 1934, its most prosperous year, up to that year, on that basis would have been 4.3 percent. Based on the depreciation charged by the company, the rate of return was 6.24 percent for 1934 and 5.04 percent for the period 1931–34 (F. T. C. 77:637–654).

Southern Natural Gas Corporation began operations in 1930, but its interest and preferred stock dividend obligations began in late 1929. The only year of the period 1930–1934 in which the corporation had any income from a year's operations available for dividends on preferred stock was in 1934, when only \$11,342.57 was available (F. T. C. 77:600–601).

The average prices for the period 1930–34 at which Southern Natural Gas Corporation sold natural gas for redistribution to different classes of consumers were as follows: Domestic consumers, 41.069 cents; industrial consumers, 15.967 cents; all others, 22.999 cents, with an average for all gas sold of 21.488 cents per M cubic feet (F. T. C. 77:605).

This company went into receivership October 1, 1931.

Connecting Gas Co.—As an example of highly profitable operation on a small spread in a small operation, the Connecting Gas Co., jointly owned subsidiary of the Standard Oil Co. (New Jersey) (50 percent plus one share) and Columbia Gas & Electric Co. (50 percent minus one share), may be cited.

This company owns and operates two parallel 16-inch diameter pipe lines 59 miles long, connecting with the Reserve Gas Co. at the Ohio River at Gravel Bank and extending to Sugar Grove, Ohio, somewhat south of Columbus, which is the center of the Columbia Gas & Electric Corporation natural gas system. The total investment amounted to \$1,730,315 book cost as of December 31, 1934. Its operating revenue was entirely derived from its fee of 2.25 cents per M cubic feet transported for the owners thereof. Operating expenses before Federal income taxes averaged over a period of years 1.24 cents per M cubic feet transported, leaving a profit including non-operating income and deductions as return on the investment of 1.11 cents per M cubic feet before Federal taxes and 0.97 cents after such taxes.

The profit of 1.11 cents per M cubic feet resulted in an average rate of return of 30 percent on the capital employed in the gas business during the 10 years 1925–34, before providing for the payment of Federal income taxes. During the same period the average return on the total invested capital (which included large outside investments) was 19.80 percent, before providing for the payment of Federal income taxes, and 17.37 percent after providing for the payment of such taxes. It is not known how much of the total provision for the payment of Federal income taxes apply to the profits earned from the gas business alone, but if it is assumed that the entire amount is applicable to the gas business, the average return on this basis would be about 26 percent. The returns on the total invested capital are less than those on the capital employed in the gas business, for the reason that on the average about 40 percent of the total invested capital was employed outside the gas business, largely in loans to affiliated companies from which only a comparatively small return was received by the company.

The amount of gas transported and, therefore, the annual revenues have steadily declined each year from 1929 to 1934, reflecting in part the decline in production of gas by Reserve Gas Co. operating in West Virginia.

The transportation cost of 1.24 cents per M cubic feet includes no compression station expense. It is equivalent to 2.1 cents per 100 miles for pipe line transport only. The transportation charge of 2.25 cents is equivalent to 3.81 cents per M cubic feet per 100 miles.

The gas transported by Connecting Gas Co. was delivered to it by Reserve Gas Co. carrying a fixed price of 11.75 cents per M cubic feet, up to January 1, 1935, paid by Columbia Gas & Electric system for two-fifths of the output and by Hope Natural Gas Co. for three-fifths of the output. With operating income averaging 11.97 cents per M cubic feet sold, Reserve Gas Co.'s operating expenses amounted to 15.42 cents, indicating an operating loss of 3.45 cents per M cubic feet over the 10 years, 1925 to 1934, inclusive, which resulted in an average loss of 6.84 percent on capital employed in the gas business (F. T. C. 84-II: 2441–2442). Reserve Gas Co. compressed the gas sufficiently to move it through the lines of Connecting Gas Co.

During the period 1925-34, Reserve Gas Co. produced most of the gas it sold but it did buy yearly varying amounts of gas ranging from 66,000,000 to 158,000,000 cubic feet per year from nonaffiliated producers at average costs of 11 to 14 cents.

On the other end of the picture, part of the gas produced by Reserve Gas Co. and sold at a loss at 11.75 cents to its affiliate, Hope Natural Gas Co., was resold by Hope Natural Gas Co. to another affiliate, the River Gas Co., solely distributing natural gas to 14 small communities in Southern Ohio, with a total of 8,779 customers in 1934. It retailed its gas at average revenues of 38.3 cents (over 85 percent of sales were to domestic consumers), with purchase cost of gas to it of 25.4 cents and net operating income of 3.6 cents per M cubic feet sold, in the period 1925-34. During the period 1930-34 when it no longer operated gas wells nor sold gas to other distributors, its average revenues were close to 41.2 cents per M cubic feet.

That portion of the gas supply purchased from affiliates cost an average of 27.58 cents per M cubic feet. That delivered by Reserve Gas Co. on account of Hope Natural Gas Co. cost the River Gas Co. close to 36 cents, though the amount so purchased was but 2 to 3 percent of total purchased. About 80 percent of the gas purchased was obtained from another affiliate at a standard price of 25 cents per M cubic feet.

On page 2402, volume 84-II, it is shown that Hope Natural Gas Co. resold the gas which it purchased from Reserve Gas Co. at 11.75 cents (which resulted in an operating loss to that company of 3.69 cents per M cubic feet) after paying 2.25 cents per M cubic feet to Connecting Gas Co. for transmission at a clear profit of 15.3 cents per M cubic feet.

Incidentally, the average annual prices paid for gas purchased from independent producers (nonutility) through the period 1925-34, ranged from 18.76 cents in 1932 to 17.19 cents in 1926, with a 10 year average of 18.24 cents per M cubic feet.

The returns on capital employed in the gas business by the River Gas Co. for the 10 year period, 1925-34, averaged 13.61 percent with wide fluctuations by years (84-II:2529).

Hope Natural Gas Co., operating in West Virginia, primarily as an agency producing, purchasing, transporting, and wholesaling under high pressures to affiliated companies at the Pennsylvania and Ohio State lines, though it also operated some local distribution systems, showed a return on capital employed in the gas business after adjustments by Federal Trade Commission examiners, but before Federal income taxes of 12.37 percent for the 10 years 1925-34, with wide fluctuations year by year.

This return of 12.37 percent was obtained by an average operating profit or margin of 5.8 cents between average revenues at 37.1 cents and expenses including adjustments of 31.3 cents per M cubic feet sold.

Hope Natural Gas Co. purchased from nonaffiliated utility and independent producers substantially 80 percent of its total natural gas supply at an average of 19 cents per M cubic feet as purchased. Such purchased gas was subject to expense in gathering lines, cleaning, compressing, and transportation to points of delivery as well as general overheads. However, a gross spread of 18.1 cents between 19 cents as a purchase price and average sales at 37.1 cents resulted in a profit of 5.8 cents per M cubic feet sold and a profit on the capital employed of 12.37 percent.

The above recital is illustrative of situations found in several systems where affiliated companies performed separate functions in the necessary coincidental operations of procurement, transportation, and ultimate delivery. Joint ownerships between nonaffiliated (by stock ownerships in top companies) corporations of some functions, particularly in procurement and transportation, frequently existed with specific contracts specifying in some cases the exact charges to be made per M cubic feet handled. Each local distribution system was always under one sole ownership.

In devising the prices to be charged for operations in each principal function, not infrequently one function would show a loss, another might show a high profit, and a third a very limited profit or even loss. Yet the systems as unified operations survived under apparently adequate or extraordinary profits.

It is to be noted that in a 10-year period such as that of 1925-34, changing conditions generally represented less profitable operations in the depression period. Data are not available as to the effects of such recovery as has occurred since 1934.

SPREADS IN NATURAL GAS AVERAGE OR CLASS PRICES AS INDICATORS OF CONTROL

Enough examples have been quoted or referred to, to demonstrate that in this distinctly service industry, prices and spreads between prices cannot alone be relied upon as even approximate indications of arbitrary control or unfair practices.

Natural gas is sold strictly as a competitor to displace fuels already in use in the great bulk of its prospective market. To get the necessary volume of sales, pricing must substantially follow the costs to users of performing the heating service by other available means. Volumes delivered at each point of sale, the load factors (or percentage of continuous use made of the facilities necessary to install to meet the occasional peak demand) pressure regulation required, continuity of service demanded, even safety factors to be guarded, are proper elements of cost which vary greatly per M cubic feet of gas delivered.

It has been customary in the industry to assign 40 cents per M cubic feet as a reasonable price of gas at city gates for gas to be resold for domestic service, with departures when close to the fields where low at-well prices prevail or where the well prices are exceptionally high. With industrial coal obtainable at mine-mouth prices equivalent to 5 to 10 cents per M cubic feet of natural gas and transportation of coal costing approximately the equivalent of 3 cents per M cubic feet moved 100 miles, industrial gas has to be generally delivered and sold at prices between 10 cents and 25 cents per M cubic feet. Large spreads between cost of gas in the fields and prices delivered at the ends of long pipe lines may exceed 100 percent yet the actual profit on necessary investment be small. In other cases, a small spread or charge of 2 or 3 cents per M cubic feet may represent a handsome profit.

It is quite definitely indicated that low prices per M cubic feet at the wells are always associated with inadequate nearby markets. Adequate markets are only obtainable by means of many millions of dollars invested in pipe lines which normally can be expected to serve markets hundreds of miles distant for a limited number of years before the supply available to the pipe line will be exhausted. This exhaustion of available supply has been the experience of many communities in the past, which depended upon certain fields for a gas supply. On the other hand, important discoveries have been and are being made, the availability of which is variable.

The laws of supply and demand, and the expense and financial risk in connecting supply with demand, are peculiarly important in this industry. At times it appears that interested financial groups have a stranglehold on the service of natural gas. There have developed abuses, not wholly necessary to meet these fundamental conditions, which require remedy which must be developed in view of the necessities of all the participants in the industry, for all are tied together by the compelling underlying conditions of maintaining an adequate,

continuous and regular service (subject to great fluctuations in day by day demands) once undertaken from a rapidly exhaustible supply or else the commodity has no value and the public will not be served.

MONOPOLISTIC ACTS AND PRACTICES

Some concrete evidence and some circumstantial testimony was presented to the Commission during its utility inquiry, much of it by persons and representatives of public bodies interested as gas land or well owners and as possible consumers tending to show abuses and bad practices in the industry which could be interpreted as monopolistic in character. These complaints may be grouped as follows:

(1) The lack of pro rata (or some other acceptable, as an equitable, method to govern) withdrawals, purchase and transport of gas from producing areas by the existing pipe lines, providing the only access to markets that might offer remunerative prices for the gas, with the accompanying evils of withdrawals of gas from lands owned by others than the owners of the wells drawn upon, lack of price competition, restricted sales, etc. In this class of complaints was testimony that pipe line companies purposely refused to build pipe lines adequate to meet the demands of gas owners for rapid output and, therefore, quick realization of cash from the available resource. Also, that gas wells affiliated with the pipe lines counted on extracting gas from uncontrolled acreage without compensation therefor.

(2) That cities and towns represented as desiring natural gas did not get a supply of natural gas brought to their city gates from not greatly distant pipe lines by the pipe line managements when the existing local gas utilities were not disposed to substitute natural gas in their distribution system under terms satisfactory to the cities and areas as presented by the witness representative spokesmen. These complaints usually include a quarrel with the local gas utility. (See F. T. C. 82: 381-382 quotations by and opinion of City Counselor Hay of St. Louis.) This class of complaints was primarily based on the expectation that natural gas could and, therefore, should be supplied to the general public at markedly lower prices to the consumers than the costs to such possible consumers of equivalent service from other existing fuel supplies.

Such complaints also assumed a right to share in the supply and pipe line capacity installed primarily to serve more distant communities where the market for gas might be more remunerative and to meet which most economically, full volume facilities had been installed for the entire length of the lines. With this assumption would be the expectation that prices should be favorable because of lesser distance for the transport of gas. Further, sometimes cities and towns wanted the natural gas available for competitive purposes with the existing utility, even to the extent of a supply of a new competitive distribution system. Doubtless many such witnesses were aware of immense volumes of natural gas being wasted from certain large fields and assumed it could be beneficially consumed if only it were brought to their communities.

(3) That the efforts of independent producers, without pipe line outlets of their own, to obtain an outlet and market for their gas was seriously and injuriously interfered with.

(4) There has been interference with, and the rendering futile of, efforts of concerns independent of the great interests which joined in constructing many of the outstanding interstate pipe lines, to build natural gas pipe lines to certain prospective markets for gas, where the gas would have been accepted by the public if offered at savings over present fuel supplies, and where the presence of such pipe lines would tend to introduce competition in kind with existing gas pipe lines and gas utilities more or less allied with the large influential utility groups.

Under (1) the problems are probably largely, if not wholly, of a local character involving property rights and fall under State jurisdiction. That injustices are numerous and often costly and justly aggravating may be seen from selected cases presented in chapter V of Federal Trade Commission 84-A.

From what has preceded in this report, it must be evident that the variable but continuous day by day takings of gas required to meet the market demands upon any large pipe line and the requirement that the supply available to the pipe line be conserved to supply the pipe line for 15 to 25 years to safeguard both the pipe line investments and the ultimate consumers convenience and expense, compel choices and reservations in the field. With such choices left to the discretion of persons on both sides of the necessary deals seeking maximum profits from their dealings, it is not surprising that dissatisfactions and actual arbitrary actions are not infrequent.

Under (2) a number of official delegations have appeared before the Federal Trade Commission and it is understood have sought access to other Government bodies. The granting of certain power to the Federal Power Commission under the Federal Natural Gas Act of 1938 to act on the matters of extensions from existing pipe lines is in answer to the complaints in some cases and should take care of the situation.

Always involved in the matter of extension of pipe lines as long as private ownership is called upon to assume the burden, is the undoubted right of capital to refuse to take risks it considers unwise. But the implications of the complaints are that the local utility interests desire to protect their existing investment and business, do not want to assume the burdens of revamping their equipment to handle natural gas and that the owners of the pipe lines are sufficiently in sympathy with the local utilities that the pipe lines will deny themselves an outlet for their gas by refusing to make it available at city gates so that effective pressure may be brought upon the local utilities to force the introduction of natural gas. To the pipe line company, a fight with an unwilling local utility means a prolonged period of lack of use of installed facilities and, therefore, earnings, and as a business proposition the pipe lines refuse to become a cat's paw.

Every pipe line built by responsible people is projected to meet certain markets for gas at certain localities. Service to others along the line may be impracticable if the first assumed markets are realized and demand the capacity of the line. Thus there may be legitimate reasons for not providing gas from one pipe line to certain localities where there may be a request for it from a portion of the local interests which must cooperate to make the service successful.

As illustrative of the two sides to the issue, in Omaha, Nebr., Indianapolis, Ind., and Philadelphia, Pa., natural gas pipe lines of large

capacity which would welcome supplying the whole or a large share of the gas needs of those communities have been at the city gates or within reasonable distances for several years. All of these cities own the local manufactured gas systems. In none of these cities have the authorities moved to introduce natural gas. Omaha buys some natural gas to use as enricher of water gas in substitution for gas oil generally used for enriching. In the present official opinion of these three cities, the introduction of natural gas service presents no balance of advantages over the present manufactured gas.

The same attitude is taken by many privately owned gas utilities, notably Baltimore, where by-product coke oven gas, oil refinery gas and even blast furnace gas are incorporated in the locally distributed supply on a basis of cost which the local utility management claims excludes natural gas offered from a nearby pipe line.

Under (3) the record shows some startling manipulations by the dominant gas holding companies in contest with independent projects.

In all these cases it is to be borne in mind that the projectors were in the game for profit. To sell at an acceptable profit would be a natural act. Insofar as such promoters and organizers were unfairly squeezed out of their properties and prospects or the purpose of the acts was to prevent competition are the acts reprehensible.

A recital of the history of outstanding cases for what they may be worth is given herewith.

ST. LOUIS, MO.

The efforts of certain city authorities of St. Louis to bring about complete natural gas service in that city have received much publicity and became the subject of considerable testimony presented to the Federal Trade Commission both directly and by quotation.

St. Louis City has for long years been supplied with manufactured gas by the La Clede Gas Light Co., a subsidiary of Utilities Power & Light Corporation since about 1926. The suburbs are supplied by the St. Louis County Gas Co., a unit in the North American Co. system.

The large city company supplies at present a mixed gas composed of natural gas purchased from the Mississippi River Fuel Corporation, which operates a 22-inch pipe line from the Monroe field, Louisiana, 430 miles away, oil refinery gas obtained from refineries owned by a subsidiary of Shell Union Oil Co., near Wood River, Ill., a short distance across the Mississippi River from St. Louis, coke oven gas from company owned ovens within the city limits, and water gas also company manufactured. The gas is standard at 800 B. t. u. per cubic foot, whereas the natural gas is classed as 950 to 1,000 B. t. u. The St. Louis County Gas Co. also supplies a mixed natural-manufactured gas of 800 B. t. u. quality.

Natural gas was delivered in quantity under firm contracts to La Clede Gas Light Co. beginning in 1932, with additional supplies under special purpose contracts for boiler fuel, coke oven fuel and industrial deliveries. The Mississippi River Fuel Corporation began delivering gas over private rights-of-way to industrial concerns about St. Louis late in 1929 and in 1930. This corporation in all its construction and operation asked no rights of eminent domain or local franchises of organized society and held itself outside of a utility status.

In addition to its own direct sales to industrial consumers in the St. Louis area, Mississippi River Fuel Corporation contracted with a

Missouri affiliate of the La Clede Gas Light Co. and with an affiliate of North American Light & Power Co. in Illinois to sell straight natural gas for industrial service through high pressure mains devoted wholly to that class of business. These intermediaries were used to dispose of natural gas in areas in which public franchises might be required.

Panhandle Eastern Pipe Line Co. constructed its long line from the Texas Panhandle to Indiana-Illinois State line during 1930-31, which pipe line passed within about 70 miles to the north of St. Louis.

The St. Louis city authorities urged that La Clede Gas Light Co. proceed to supply straight natural gas throughout its entire system, with rate reductions to levels comparable with other Missouri cities supplied exclusively by natural gas. The company refused. City authorities offered to grant franchises for a new system of gas mains to deliver natural gas. The Mississippi River Fuel Corporation was cool to supplying natural gas to a possible competitor of the utility with which it had contracts.

Efforts made to induce the Panhandle Eastern Pipe Line Co. to extend its line came to naught. Its president at one time testified he would not build without guaranties into what would be competitive territory. At least one independent gas and oil field developer, upon encouragement from certain city officials, attempted to get a city franchise, a certificate of public convenience and necessity from the Missouri Public Service Commission and to get financial backing but all those efforts came to naught.

The Public Service Commission of Missouri has interested itself in the problem of supplying straight natural gas to St. Louis by ordering an investigation by its staff and conducting hearings. There have been before that commission for years rate cases involving the valuation of the property of the La Clede Gas Light Co. with appeals to the courts.

A representative of the Mississippi River Fuel Corporation declared to that commission that his company was able and willing to sell La Clede Gas Light Co. all the gas it required for complete natural gas distribution at its regular schedule of rates. The Gas Light Co. claimed it could see no possibility of savings to justify reduced rates under the prices for natural gas demanded by the pipe line company.

No other utility or pipe line company could be attracted to enter the field to face competition from the existing suppliers.

A wide difference exists in the estimates made by the Public Service Commission staff and the city's advisers as to the reasonable and fair reduction in rates that might be expected, based on the existing city gate prices for natural gas and the local properties involved. In one set of estimates, small allowance was made for return upon or amortization of possibly superseded manufactured gas equipment, while the other set provided for amortization, etc. Also the city advisers based their estimates upon doubling or even tripling the volume of sales to be expected under their estimated low rates.

In the technical, corporate, and financial relations involved, assertions were made that deliberate policies of denying the most economical service to the city in order to protect vested interests were locally practiced and nationally supported on the part of some group interests because of their interests in similar situations elsewhere, and that independents or weakly financed groups were deterred through fear of reprisals in other areas, or by absolute denial of financial

assistance from bankers, because of word passed along from dominating financial groups.

It is a fact that no responsible group has persisted in attempting to establish a competitive situation in and about St. Louis either in the pipe line delivery or local distribution of natural gas, though certain official elements in the city government offered inducements short of financial guaranties. Neither has the city seriously moved to supply the necessary investments upon its own credit.

In Federal Trade Commission Exhibit 6408, Power and Gas, filed but not printed, the Federal Trade Commission has copies of a series of contracts between Mississippi River Fuel Corporation and all or nearly all the utility and wholesale redistributors which purchased natural gas from it. These contracts vary somewhat individually but in general running through all the contracts are certain definite positions.

(1) The purchaser is to buy natural gas exclusively of the Fuel Corporation as long as the latter continues to furnish an adequate supply.

(2) Definite limitations are put upon the maximum demand for gas which the purchaser may make upon the pipe line under the contract without a new and formal agreement with the pipe line company.

(3) The contracts for sale of natural gas, usually to run for 15 or 20 years, specify successively higher charges by periods of years as the end of the contract term is approached. In some contracts, notably to utilities supplying large communities, the two-part rate, with a demand charge plus a commodity charge, is specified; in others, a block quantity rate prevails. The two-part rate definitely tends to encourage a high load factor.

(4) The Fuel Corporation has the right to examine purchaser's records insofar as it is necessary to verify the amounts of gas sold under the several classes of sale for which separate charges are made in billing the purchaser by the Fuel Corporation.

(5) Prices made by the Fuel Corporation generally recognize two chief classes of utilization of natural gas by ultimate consumers, namely, first, general utility, such as domestic and ordinary commercial consumption; and, secondly, industrial large volume consumption. The prices for the first (domestic and commercial) class often are affected by the load factor resulting, based on a standard load factor of 60 percent. To industrial consumers, prices are looked upon as being on competitive bases with other fuels as regards the operations of each customer. The Fuel Corporation exercises some supervision and often receives as its compensation 85 percent of the revenue obtained from industrial customers by the distributing utility as the Fuel Corporation's compensation for gas supplied by it for resale to that class of consumer.

(6) In the contracts which concern the sale to LaClede Gas Light Co., the latter company specifically bound itself, unless by further permission of the Fuel Corporation, to distribute gas limited to a standard of 800 B. t. u. per cubic foot and no other, and under its contracts with oil still gas purveyors, to purchase as nearly as possible only the minimum takings of such gas required by its contracts. (See F. T. C. 82: 800-802 for abstracts of some of these contracts.)

As a means of limiting the demand for natural gas during the periods of great demand, the LaClede Co. was to be allowed to increase

temporarily the heating value of gas manufactured by it from a normal maximum of 600 B. t. u. to 650 B. t. u. Similar terms appear in the contract with the St. Louis County Gas Co.

(7) In certain contracts with distributors of natural gas to industrial consumers only, the Fuel Corporation as seller expressly requires that the distributor will not sell its purchased gas for domestic purposes, for the expressed reason that the 22 inch pipe line will not be adequate to meet its wholesale commitments "if its capacity is subject to the variation in demand of the domestic consumers residing in the territory" to be supplied at wholesale, but that "the entire capacity of the 22 inch pipe line shall constitute a reserve supply" for industrial and other contractual wholesale supply.

(8) In a supplemental agreement dated October 23, 1931, signed by H. C. Cooper, vice president, and addressed to Missouri Industrial Gas Co., St. Louis, Mo., Mississippi River Fuel Corporation agrees to cooperate with LaCledde Gas Light Co. in the disposal or use of increased amounts of oil still gas which might become available. Under the regular contract, LaCledde Co. was to use not in excess of 4,675,000 cubic feet per day—"We will cooperate * * * with the LaCledde to make some arrangements with respect to such excess oil still gas which will prevent it from being so offered to customers supplied by LaCledde." "Failing to make such arrangements, we (the Fuel Corporation) will either purchase such excess quantity of oil still gas and dispose of it in markets other than those served by the LaCledde" (with natural gas) "or, at our option, we will consent to increase the amount of oil still gas the LaCledde is permitted to purchase * * * to such amount as may be necessary to prevent such * * * gas from being offered by others to customers served by the LaCledde."

It has been asserted by certain representatives of the city before this Commission and elsewhere that the contractual limitations referred to above in the contracts are against the public interest, that they have been used to thwart the demand for straight natural gas distribution by LaCledde Gas Light Co. and in effect represent a conspiracy against the public. Further, it has been asserted that the refusal of other trunk pipe line companies to build to St. Louis and the inability of an independent who at one time thought he could finance another pipe line and even a duplicate system to distribute natural gas in St. Louis to obtain the many millions of dollars required from the investment bankers of the country are all evidence that arbitrary control of finance, pipe line, and utility matters underlies the solidarity of interest that seemingly often appears in such matters.

On the other hand, there is ample evidence in the contracts and in declarations of officials of the corporations immediately concerned that the latter are willing to supply natural gas but cannot or will not supply it at the prices to ultimate consumers which it is the contention of the city authorities would represent reasonable compensations. The demanded low prices with the assumed widely increased substitution for other more objectionable fuels to result therefrom, are their sole valid reasons for desiring natural gas.

That the assumed solidarity of interest among utility corporations is not perfect in all manifestations is shown by the rate schedules of the two contiguous gas utilities in and about St. Louis, which dis-

tribute gas of the same standard heating value, made by mixing natural gas purchased from Mississippi River Fuel Corporation with locally manufactured gas.

Prices paid to Mississippi River Fuel Corporation for natural gas for incorporation into redistributed gas, excluding boiler fuel gas

	By the St. Louis County Gas Co.	By LaCledde Gas Light Co. within St. Louis
Capacity charge, year 1938-39	\$3.81 per M cubic feet	\$3.81 per M cubic feet.
Commodity charge, year 1938-39	8.09 cents per M cubic feet	8.09 cents per M cubic feet.
Based on 60 percent load factors, equals total charge	29.26 cents per M cubic feet	60 percent, 29.26 cents per M cubic feet.
Contract date	Feb. 10, 1932	Oct. 23, 1931.

Resale rates, general service, monthly billing

By the St. Louis County Gas Co.:

First 200 feet \$0.50—also the minimum bill.
 1,000 cubic feet average, \$1.30 per M cubic feet.
 2,000 cubic feet average, \$1.15 per M cubic feet.
 5,000 cubic feet average, \$1.06 per M cubic feet.
 10,000 cubic feet average, \$1.03 per M cubic feet.

By LaCledde Gas Light Co. within St. Louis:

First 250 cubic feet \$0.80—minimum bill, \$0.75.
 1,000 cubic feet average, \$1.646 per M cubic feet.
 2,000 cubic feet average, \$1.387 per M cubic feet.
 5,000 cubic feet average, \$1.206 per M cubic feet.
 10,000 cubic feet average, \$1.114 per M cubic feet.

Furthermore, the St. Louis County Gas Co. rate is set up in prices per 1,000 cubic feet whereas the LaCledde Co. rate is set up in prices per therm. For the gas delivered by both companies, a therm (100,000 B. t. u.) is equivalent to 125 cubic feet, or 8 therms equal 1,000 cubic feet as metered.

The therm basis of pricing gas is scientific and expresses the real usefulness of the gas to the purchaser. However, it appears to have been a common practice among American gas companies to adopt the therm basis only when in the process of changing to an important extent the heating value of the gas to be delivered at the same time that the price was changed to result in an increase in the price per M cubic feet, to adopt the therm basis of stating the rates which had the effect of rendering difficult to many consumers a direct comparison of new and old rates.

In the St. Louis region the rate policies of two important holding company subsidiaries were different both as to the manner of expressing the rates and in the actual prices for equivalent service, though the gas distributed was of the same relative value to consumers. Generally, suburban distribution and smaller total volumes tend to higher prices than are expected to prevail in large city systems.

FULTON, MO.

It was testified to by a Public Service Commissioner of Missouri that the small municipality of Fulton, Mo., had applied to the Panhandle Eastern Pipe Line Co. for a supply of natural gas for distribution under public ownership in that town. The pipe line company built a 22 mile branch to Fulton but delayed supplying gas though the main line had ample capacity. The city of Fulton appealed,

September 1931, to the State Commission to order delivery of gas to its system. The Pipe Line Co. resisted ostensibly on the basis that it was an interstate business and not subject to the control of that commission. As of November 15, 1935, service had not been extended to the municipality, while the jurisdiction of the Commission to order service was in the courts.

The inference was stated that the Pipe Line Co. having come under the control of Columbia Gas & Electric Corporation, would not serve a municipal system. Brown's Directory of American Gas Companies, 1937 edition, is authority for the statement that natural gas was supplied Fulton by the Panhandle Eastern Pipe Line Co. under date of May 15, 1936. Further information is not available.

DETROIT, MICH.

Detroit has for years offered residentially and industrially a particularly large potential market for gas fuel. If natural gas in large volume could be supplied so that industrial gas might be sold at the customary low rates, the industrial position of the city would be benefited. Therefore, agitation for a supply of natural gas has been active for some years. Until the construction of the Panhandle Eastern Pipe Line from Texas to Indiana about 1931, Detroit's hope for natural gas depended upon (1) the extension of the gas system of Columbia Gas & Electric Corporation, already delivering some natural gas in Toledo, Ohio, 65 miles south of Detroit, or (2) upon a gas pipe line from the Kentucky gas fields. In the latter case, a direct line would pass through important areas already supplied with natural gas. The size of the Detroit possible gas consumption was so great that the city could not afford to change to natural gas unless assured an adequate supply for years. Columbia system remained reluctant to extend its system.

Mr. John W. Smith, former Mayor of Detroit, expressed the following opinions of the situation as he saw it, in an address at Columbus, Ohio, in 1935:

* * * the Columbia interests have made no sincere and honest attempt to supply natural gas at Detroit. Instead they have employed their ill-gotten millions either to buy up independent competition which sought a franchise to supply natural gas to industries, or to wreck another independent enterprise which could have brought gas to our gates. We have encountered Columbia's evil influence even in the natural gas fields of north central Michigan where, I am reliably informed, they told an independent producer that "Columbia is the only logical company to develop Michigan's natural gas field, and if and when we get ready, we will do so." In the meantime, gentlemen, cities of Michigan are paying exorbitant rates for gas, when, in some instances, it would be possible to bring natural gas from nearby fields to a city gate at a price of approximately 12 cents per thousand cubic feet.

Later in a report to the United States Conference of Mayors at a meeting in Washington, D. C., November 18, 1936, at the time when the Federal Trade Commission had more fully developed the facts, Mr. Smith as chairman of the committee on natural gas of the conference, fairly summarized the obstructive tactics of the Columbia system as to Detroit as thus more fully disclosed in the following words:

We learned that, late in 1930, Columbia's management was directed to extend its Ohio system northward from Toledo to Detroit. The action was taken by the executive committee of Columbia's board on the day after another company—a

new, independent enterprise—had asked our common council for a permit to sell natural gas to local industries. The supply was to come from eastern Kentucky through a pipe line that would cut straight across the Columbia network. Now, if Columbia in 1929 had insufficient gas for Toledo homes, how could it, a year later, plan to sell natural gas from the Toledo area to the great industries of Detroit?

We learned further that Columbia, instead of building a line to our city, obtained financial control of its potential rival, and later "permitted" the producing subsidiaries to go into receivership. Much of the right-of-way had already been taken for the line to Detroit and valuable new gas acreage was under Columbia's control, but Columbia still failed to pipe natural gas to our city, the world's greatest market.

Up to 1930, the Columbia system had taken no steps to build the short 65-mile extension of its natural gas pipe line from Toledo to Detroit. In that year Mr. O. D. Seagraves, who had built and disposed of several natural gas pipe lines in Texas, associated his concern, the Moody-Seagraves Co., with certain other persons and bankers who were already at work to promote and build an independent natural gas pipe line from the Kentucky gas fields into Detroit. That project proceeded to the point where many big contingent contracts for natural gas were obtained in Detroit and about one-half of the right-of-way had been optioned. The record shows that the several underlying corporations involved in the project had issued over \$10,000,000 in bonds and debentures, had entered into contracts to purchase large fixed amounts of gas without sufficient corresponding fixed sales contracts, had insufficient earnings to meet obligations and the whole financial situation was precarious with weak financial backing, and that this occurred in the depths of the depression. The Columbia system then bought it out at a cost of approximately \$3,000,000 and abandoned the proposed development (F. T. C. 83 : 326-336).

Following this, there were many and long negotiations between the United Light & Power Co., controlling Detroit City Gas Co., and the Columbia in an effort to get the Columbia to furnish gas for Detroit. These negotiations also resulted in nothing. The reason given by one witness was that in those depression times it would cost the Detroit City Gas Co. too much money to change the distribution system over from manufactured to natural gas use. It could not then be financed. In 1936, the change-over was accomplished at a cost of \$2,723,404 (F. T. C. 83 : 174-180).

When the Panhandle Eastern Pipe Line had been completed to the Indiana-Illinois line, its managers tried to get into Detroit, but when the Columbia system came into control of Panhandle, its subservient officials therein stopped that effort. Finally, after an antitrust suit by the United States Department of Justice, the Columbia, in 1936, built the Michigan Gas Transmission Co. pipe line completing connection from the terminus of the Panhandle Eastern into Detroit. Thus, finally Detroit obtained a supply of natural gas but not from a line independent of the Columbia system. Columbia's complete ownership of the Michigan Gas Transmission Co. gave it the power to dictate terms to the Panhandle Eastern.

Natural gas distribution in Detroit was completed city wide November 7, 1936. The city gate rate was 33½ cents per M cubic feet based on a 70 percent load factor. At the terminus of the Panhandle Eastern pipe line on the Illinois-Indiana line the price was 26½ cents. The 1939 price to domestic consumers at \$1.60 per M cubic feet of natural

gas is exactly equivalent on a heating content basis to the price for manufactured gas previously supplied.

These prices and rates were all a subject of conference and agreement between the city authorities, the gas company officials and the pipe line representatives. In sales to large industry, substantial reductions over previous manufactured gas rates prevail. The rates were approved by city ordinance.

The question of effective divorcement of Columbia's control of the Panhandle Eastern, including the position of the Michigan Gas Transmission Co. line therein, is still the subject of a reopened antitrust suit by the Department of Justice. Comment as to that situation cannot, therefore, with propriety be made here.

CINCINNATI, OHIO

Cincinnati's situation and complaint are thus stated in a brief recently by its city solicitor in a proceeding before the Securities and Exchange Commission (pp. 1 and 2):

The city of Cincinnati is one of the largest gas markets served by the Columbia System.

* * * * *

Since 1925 the city has been supplied with a mixture of natural and artificial gas for a minimum heat content of 800 B. t. u. (for the past 8 months the minimum has been increased to 875 B. t. u. for summer months and 930 B. t. u. for winter months). The claim of the Cincinnati Co. has been that it was unable to secure an adequate supply of natural gas from its affiliates * * *.

The specific complaint of the city of Cincinnati is that the same integrated system that is proposed and that claims as one of its great advantages a "coordinated operation of all systems, companies, utility and non-utility, to make all their resources available" (plan p. 13) has not in the past and is not now willing to use its resources to supply the city with natural gas. It is a curious fact that in the entire State of Ohio served by the Columbia System Cincinnati is the only city to which the company refuses to deliver an adequate supply of natural gas. Strangely enough in the cities of Kentucky directly across the Ohio River and supplied from the same transportation lines only natural gas is supplied consumers.

The population supplied in the Cincinnati district is estimated at 657,000 while that in the Covington-Newport district across the Ohio River in Kentucky is 165,000. The 3 other cities in Ohio of over 100,000 population supplied by the Columbia System are Columbus (200,000), Dayton (201,000), and Toledo (291,000). In 1938, the mixed gas supplied Cincinnati was made up of 9,800,000 M cubic feet of natural gas, 2,700,000 M cubic feet of coke oven gas purchased from the Hamilton Coke & Iron Co., a subsidiary of American Rolling Mill Co., and 1,300,000 M cubic feet of locally manufactured gas. The mixture, standard at 865 B. t. u. per cubic foot, is sold in Cincinnati on a residential rate identical with that for wholly natural gas of about 1,010 B. t. u. per cubic foot in the Covington-Newport, Ky., area.

The Cincinnati gas service is, to a considerable extent, backed up by the operation of maintained manufacturing gas system. It is also probable that contracts for coke oven gas have some years to run. The reported average cost of combined natural gas and coke oven gas purchased was 32.8 cents per M cubic feet which should average approximately 800 B. t. u. per cubic foot, whereas the Columbia System's gate price at Cincinnati was 45 cents for straight natural gas of 1,010 B. t. u. or better.

There immediately arise two or three problems of both general wide public and private investment interest. To substitute all natural gas service in Cincinnati would for recent consumption bases require only about 2,100,000 M cubic feet per year additional over the present supply, or about 20 percent additional. But such a substitution would eliminate the coke oven gas which, as a by-product, would have to find another market or be wasted. The service to the public of Cincinnati would then depend wholly upon successful continuous maintenance of the transport of natural gas to that city. It doubtless is expected by proponents of a complete natural gas supply that the general level of rates would be lower and greater consumption of gas take place. Yet, judging from the experience of other cities, the natural gas rates would continue to carry either a carrying charge on the manufactured gas equipment kept in reserve or amortization charges to ultimately retire it.

According to available maps, the Covington and Cincinnati districts are supplied by a single 20-inch pipe line tapping the extreme eastern Kentucky gas fields with connections through the West Virginia fields. An 18-inch line also enters Cincinnati from the north from which the supply for Dayton and other communities is obtained. This 18-inch line enters the Columbia System pipe line network northeast of Columbus with some few possible interconnections in between.

There is at least good grounds for assuming that many differences of business opinion may exist as to the feasibility of utilizing coke oven gas, adequacy of service over only one direct supply line, and ultimate costs of equivalently reliable service between present arrangements for mixed gas and an all natural gas service.

It is to be noted that in the Appalachian area the question of high form utilization of natural gas versus its otherwise waste at the wells is not a factor.

COLORADO SPRINGS, COLO.

The story is told in the Commission's investigation relating to the experience of a city much farther west, namely, Colorado Springs, in obtaining natural gas. The facts will not be recited in full but reference made to the record (F. T. C. 82: 48-51, 631-641, and F. T. C. 84: 2, 501-613).

Colorado Springs, Colo., owned and operated a municipal manufactured gas plant and distribution system.

The pipe line of Colorado Interstate Gas Co., bringing natural gas from the Texas Panhandle to Denver, passed within about 6 miles of Colorado Springs. The pipe line attempted to negotiate with that city to purchase from the pipe line natural gas in substitution for the city's own manufactured gas supply, but at first without success. One Arthur K. Lee, with a plan to construct a pipe line from gas fields in southwest Kansas, did secure a contract with Colorado Springs to supply that city with gas under date of July 30, 1930. Service was to begin August 1, 1931.

The Public Service Co. of Colorado was concerned with the prospects of disturbance of its own rate system in Denver and other communities by prospective municipal rates in Colorado Springs. The Colorado Interstate Gas Co. feared to lose outlets for natural gas it expected ultimately to obtain, if a second pipe line entered the territory. Standard Oil and Cities Service interests, according to cor-

respondence copied into the Federal Trade Commission record, immediately after A. K. Lee had very quietly obtained contracts or franchises to sell gas in Colorado, began to plan how they could reach Lee with the ultimate objective of causing him to abandon his independent and competitive project. These interests let Lee know by round about means that conferences between them could be arranged. Financing the approximately \$1,500,000 required in the troublous 1930-31 period proved difficult to A. K. Lee and by April 17, 1931, negotiations were undertaken by Lee and associates with Standard Oil Co. representatives as dominant in Colorado Interstate Gas Co. to sell out his unconstructed project and franchise contracts which was finally consummated about July 31, 1931, by the net payment of \$250,000 to Arthur K. Lee.

This cleared the way for Colorado Interstate Gas Co. to sell natural gas to Colorado Springs and several small communities, leaving that pipe line with no gas competition. But the city of Colorado Springs obtained somewhat better terms than were originally offered by Colorado Interstate Gas Co.

OTHER CITIES

Among the larger cities which have not yet obtained a supply of natural gas are those in the metropolitan New York area, Philadelphia, Baltimore, Indianapolis, Pontiac, Milwaukee, and in fact the entire State of Wisconsin with its many industrial cities. How large a factor the local manufactured gas and other utilities are in this situation is not necessary to determine. The fact remains.

The close community of interest in refraining from competing with existing utilities and possibly other fuel supply sources is illustrated by the Baltimore, Philadelphia, and New York situations. The Commission in its final report comments on these more at length (F. T. C. 84-A: 151-154). Only about 8 miles from the city limits of these cities are pipe lines which are running by no means up to load capacity and yet neither has natural gas. To be certain that none is brought into Philadelphia and mixed with the manufactured gas, an inquiry was addressed to and an answer received under date of April 4, 1939, from a vice president of United Gas Improvement Co. which operates under an agreement with the city-owned manufactured gas plant in Philadelphia. He stated that no natural gas had been purchased by United Gas Improvement Co. from Columbia's two nearby pipe lines and to date we know of no change in that respect. These natural gas pipe lines have been virtually unused for several years. In these areas are by-product coke ovens and oil refineries producing gas in addition to the long established carburetted water gas plants. The areas are nearly if not completely under long standing franchises covering the distribution of gas.

Washington is the only large city taking natural gas from this line and it only takes enough to mix with manufactured gas to maintain the contracted for British thermal unit content. Recently the local press announced that the Public Service Commission of the District of Columbia intended to study the problem of the advisability of the use of 100 percent natural gas.

EFFORTS OF NATURAL GAS PRODUCERS TO OBTAIN OUTLETS AND MARKETS

With the limited facilities for marketing gas from many fields potentially large producers, and with the pipe lines commonly finding it wise to control directly or through affiliates ample sources of supply which they can and do draw upon to regulate the prices at which they purchase gas in the producing fields, many independent producers are unable to obtain satisfactory or even any outlet for their gas—to their substantial injury and even bankruptcy.

HUGOTON PRODUCERS

The story of W. M. McKnab who drilled the first well in the Hugoton, Kans., field will illustrate. Mr. McKnab testified under oath, before the Federal Trade Commission in its utility hearings on November 15, 1935 (F. T. C. 83: 27-42). His experience is summarized in the Commission's final report to the Senate (F. T. C. 84-A: 192-195). In brief substance his testimony is that he not only discovered and developed the first well in that field but, together with others, drilled many more large producing wells, that later he parted with a half interest in his wells to a pipe line company on the assurance and agreement to take his gas to market. Coincidentally, he obtained leases from other well owners, always with a provision requiring the taking of substantial quantities of gas from the lessors. The upshot of the whole situation was that the pipe line fell under the control of the Columbia system, and persons dominated by it, and it refuses to take the gas tendered by Mr. McKnab and his associates. This resulted in the cancelation of the leases which he had made with others, which were then picked up by the big pipe line companies. The final result is that Mr. McKnab, instead of having reward for his pioneering and real development work, after having accepted a loan from one of the big companies to tide him over, found himself practically bankrupt.

Included in Mr. McKnab's efforts to obtain outlets was an application for a gas franchise in St. Louis with a proposal to build his own pipe line to span the gap of 80 miles from the pipe line with which he had his contracts. This phase has been mentioned in discussing the St. Louis situation.

TREATMENT OF INDIVIDUAL WELL OWNERS

Complaints in great number came to the Commission during its investigation from individual well owners of both large and small wells of unfair treatment by pipe line companies. Obviously more than one pipe line company rarely built gathering lines into any certain portion of a field. This meant that the well owners were absolutely subject to the will and caprice of such company, so that as to well owners, it became a "take it or leave it" proposition. The Com-

mission's record and files are replete with instances where leases, not generous to begin with, were arbitrarily cut in two, or even to a less price. Usually these leases were short term flat annual price leases. Reductions in payments were so drastic that sometimes there remained no more than sufficient to pay taxes on the land, with no net income to the well owners. In other instances the leases were canceled outright, and the owner left without any outlet or income from his gas. One instance is of record in the Commission's investigation where one of the large companies, namely, the Columbia, canceled in 1 year nearly one-half of its leases. On the contrary, in some of the area supplied by it and other concerns, there was the unusual situation of higher rates for greater quantities than for small quantities, on the theory of an alleged shortage of supply. Of course the company assigned reasons for its action. Two outstanding factors appear, namely, that in the years 1931-34, a marked reduction in the demand for gas from existing pipe lines generally occurred and secondly, State commissions in rate cases were questioning the inclusion in the rate bases of excessively large gas lease holdings.

ROYALTY CONTRACTS

For natural gas what is quite commonly known as the Form 88 lease still continues in general use. This provides for a one-eighth royalty. It originated in the first days of oil discoveries when prospecting was really wildcatting. It represents the risk to the well drillers who under such leases supply all the money to drill the well and facilities for measuring and marketing the output. The Minerals Year Books report 59,146 wells reported completed in the United States in 1937 and 1938, of which about 70 percent were classed as oil wells, 8 percent as gas wells and 22 percent as dry holes. One thousand nine hundred sixty-four wells which were producing gas in 1936 were abandoned in 1937 or about 3.6 percent of all previously producing wells.

OPPOSITION OF DOMINANT INTERESTS TO INDEPENDENT NATURAL GAS PIPE LINES

The discovery of the famous Texas Panhandle field and somewhat later the adjacent Hugeton field in Kansas revealed the presence of enormous quantities of natural gas in that area. Important gas utility companies operating in Texas, Oklahoma, and Kansas were able to secure huge reserves in the field from which they might supply their systems. Moreover, it was soon found that reserves were obtainable far in excess of local market demands. Inevitably, projects involving long-distance transmission of gas through pipe lines to large markets were quickly conceived and initiated. These projects became a matter of intense concern to the large gas and electric utility companies already firmly established in control of light and power in such distant market areas.

There does not exist today what may be termed a single important independent natural gas trunk line from an important gas field to any distant large use area. All the outlets for natural gas to substantial consuming areas are controlled by groups that work closely together, under many interlockings of common interest. The result, so far as concerns the independent producers at the one end and the using public at the other end, is quite complete control of natural gas by such groups.

THE MISSOURI-KANSAS-PANHANDLE EASTERN

The only important natural gas trunk pipe line of length and capacity initiated as an independent project that has been built and is now in successful operation is the Panhandle Eastern Pipe Line Co. At first the owners of established lines ridiculed the project, but when it was later disclosed that the project had behind it an ample gas reserve, their tactics were changed.

This project is an outstanding example that presents from its inception and in its existence to the present day about every conceivable opposition which the big companies could apply to an independent venture into the natural gas and natural gas pipe-line field. Two reasons for most of those troubles are obvious:

- (1) The temerity of the promoters in attempting to finance such a sizable project by selling stock rather than consulting with and putting themselves in the hands of the big financiers who are in close contact with competing interests (F. T. C. 82: 265).

- (2) The threat of such an independent project to disturb the city gate rates which were in existence in the territory in which it would become a competitor (F. T. C. 82: 927; 66-1259-1261).

Briefly enumerated, the acts in opposition included:

Threats of prosecution for alleged frauds in representations made in selling stock, followed by prosecution of the promoters in exact accord with the threats (although results have proven that the complained of representations were in fact understatements), threatened market

raids on its stock, followed by a market collapse in the stock and consequent refusals of subscribers to take and pay for their subscriptions to stock (F. T. C. 82: 197-310, 321; 83: 175, 1022-1023; 84: 2108-2109), threats to both banks and utility companies if they aided the project (F. T. C. 66: 1259-1261; 82: 927-928), repeated intentional delays and secret blocking of promised financial aid (F. T. C. 82: 297-349, 166-267), egging supplying firms to demand prompt payment (F. T. C. 82: 322-325), induced change of route and markets on reciprocal promises of other markets and aid, which promises were disregarded (F. T. C. 83: 548-549, 558-559; 82: 180-181, 298-299; 84A: 595), planting a spy in its offices (F. T. C. 83: 47-64), attempts to have it change its technical staff, interference with the obtainment of needed certificates of convenience for construction (F. T. C. 82: 194-195, 324-325), transcended agreement for equal financing and control with the result that finally one of the large groups, namely: The Columbia, came into dominance, in October 1930, and thereafter adversely conducted the affairs of this project by refusals to take and carry natural gas offered under contract, so as to cripple and put the project company into receivership.

This dominance has continued to the present time, even in the face of Government antitrust proceedings and one consent decree which were intended to terminate such dominance by the Columbia system over the 859 mile long independent natural gas pipe line of the Missouri-Kansas-Panhandle Eastern companies which extended from the Texas and Kansas natural gas fields northeastward to the Illinois-Indiana State line. As to this line the immediate result of the continued dominance was that it refused to develop the natural gas business which it was built to take on, by refusing to sell natural gas in any territory where such sales would have resulted in competition with Columbia or friendly utility interests, or to carry natural gas tendered to it for delivery in such territories.

To break this control, the Department of Justice brought a suit to compel the divestiture of such control. This suit terminated in a consent decree which has either been flouted by Columbia or has proven ineffectual. Recognition of this result appears in the fact that the Department of Justice has now reopened the whole matter to secure effective results and the termination of Columbia's domination. For that reason further comment on this is deemed inappropriate.

The Federal Trade Commission's investigation record has ample testimony on each of the points enumerated. The story as developed by the Commission is too long either to be told in this report or even as an appendix hereto. Therefore, citations have been given so that anyone sufficiently interested may study the record. Mr. Frank P. Parrish, one of the organizers, told the story quite completely in F. T. C. 82: 166-267. Mr. William G. Maguire, now president of Missouri-Kansas Pipe Line Co., the holding company over Panhandle Eastern Pipe Line Co., also testified concerning the same matters (F. T. C. 82: 297-349). The Commission's brief summary of the situation is found in its Final Report 84A, chapter 12, section 4, (f) 1, 594-597.

In spite of the many early activities and vicious forms of opposition as above stated, that trunk pipe line was finally completed from the gas fields of southwestern Kansas and northeastern Texas to the Illinois-Indiana line, but not until after the Columbia system had

obtained a dominant position in the project. This is the dominance which the Department of Justice is still seeking effectively and actually to terminate. At this point it should be stated that, without the full possibilities yet developed, this system's trunk line has emerged from a strangled bankrupt to one on a paying basis. This has come about in spite of early financial troubles and excessive charges, and a present necessity for paying a profit-making charge to the dominating Columbia system for the connecting line transport to its Detroit market. The latter, according to our information, is on approximately the same mileage basis charge as the Missouri-Kansas-Panhandle system receives on its system.

The motive behind the telegrams of the late Henry L. Doherty, of Cities Service, to the National City Bank and to the North American Co. (F. T. C. 66: 1259-1266; 82:927-928), threatening reprisal for disturbing the status quo, is easily discernible when it is realized that this project threatened to cause utility commissions and consumers to challenge the rates of the Cities Service Co. at Kansas City and points nearer the wells. Such parallel pipe lines also threatened to divide the existing gas business. Columbia's attitude arose from similar reasons affecting its gas business in Indiana and Ohio.

Moreover, the harmony of action of Standard Oil and Columbia representatives in the steps taken against this project was consistent with their affiliation elsewhere.

To show still further the community of interest, the voting trust established for the Panhandle Eastern Pipe Line Co. common stock under date of October 1, 1930, named as trustees Frank P. Parish, representing the Missouri-Kansas Pipe Line Co. (which had attempted to finance the Panhandle Eastern line); Philip G. Gossler, representing Columbia Oil & Gasoline Corporation (at the same time president of Columbia Gas & Electric Corporation); and George H. Howard, representing the United Corporation, which held a substantial voting interest in Columbia Gas & Electric Corporation.

As a side light on the possible competition in rates, the natural gas rate in effect in Detroit since 1936 under agreement with city officials as being in accord with the reasonable costs of bringing Texas gas to Detroit for general service amounts to the equivalent of \$1.56 per M cubic feet of natural gas for the first 26,500 cubic feet used per month. A so-called promotional rate which requires a consumer to use more gas than in the preceding year starts with the first 1,060 cubic feet at \$1.41 per M cubic feet with all additional consumption at the equivalent of \$1.03 per M cubic feet.

The rates effective in Toledo since May 23, 1930, for natural gas have been 75 cents net for the first 1,000 cubic feet, 60 cents for the next 1,000 cubic feet, and 45 cents per M for the next 3,000 cubic feet.

By this comparison, Columbia system appears to have nothing to fear from price competition with Texas gas if the latter were sold in its territory on the basis of fair costs. The rates in numerous other Ohio communities served with natural gas by the Columbia system are on a similar and sometimes lower level. As previously pointed out, a mere comparison of rates without knowing the circumstances governing all the costs of supply should be used cautiously. In this case, however, it seems fair to deduce that if Texas natural gas is fairly priced in Detroit at well over \$1 per M cubic feet and the Columbia system is retailing natural gas produced in Kentucky, West Virginia,

and Ohio at prices equivalent to 80 cents or less, the opposition of the Columbia system was possibly due more to possible division of volume of available business rather than disturbance of prices.

THE MOODY-SEAGRAVES PROJECTS

The Moody-Seagraves interests offered the first serious threats to the domination of the big interests of the natural gas pipe line situation. The efforts of the Moody-Seagraves people consisted of at least three different projects, one into Pueblo and Denver, and the second into Omaha. Both of these were to run from the Texas-Hugoton area. The third project was from the Kentucky gas fields to Toledo and Detroit. Briefly stated, these proposed pipe line ventures were either balked by interference with credits, or other pressure, or bought up lock, stock, and barrel and then not built, or when built they became a part of the system of the dominating concerns. Broken promises played a part in the debacle of these projects which ultimately forced Moody-Seagraves into receivership. To give a proper perspective, it is necessary to refer to the Lone Star Gas Corporation group. The interests that formed Lone Star Gas Co. were among the same group of eastern capitalists that developed, controlled, and operated the Columbia Gas & Electric system in the Appalachian and Ohio gas producing areas (F. T. C. 84: 519). In 1934 the Lone Star Co. controlled 119,000 acres of gas reserves, mostly in Texas (F. T. C. 84: 523), and of course enjoyed generally a monopoly in the distribution of gas in the communities in Texas, where its extensive distribution systems are mainly located. In turn Lone Star owns 30 percent of the Northern Natural Gas Co. (the pipe line to the Twin Cities), of which North American (Harrison Williams group, through its North American Light & Power Co., in which Insulls formerly owned 42.5 percent) and United Light & Railways Co. (Cyrus Eaton-Schaddelee group), each have 35 percent of the voting stock (F. T. C. 84: 8 and 50: 453). These interests through the Northern Natural Gas Co. eliminated the Moody-Seagraves group from potential competition in that area by buying all their rights of way, assuming their purchase gas contracts, etc., and a promise to buy gas in large quantities from them and also buying their Argus Pipe Line Co. (F. T. C. 81: 162-163).

THE KENTUCKY-DETROIT LINE

From 1927 to near the end of 1930, when the Columbia's dominant and monopolistic position in natural gas in parts of Indiana, Ohio, Kentucky, West Virginia, and southwestern Pennsylvania was being threatened by the construction of the Panhandle-Eastern pipe line which threatened to bring large quantities of the cheap Texas Panhandle and Hugoton, Kans., natural gas into its territory, the Columbia was under a second threat to its monopoly by a projected natural gas pipe line from the Kentucky fields to Detroit. The story of how Columbia took control of and disposed of the competitive threat of an independent pipe line from Kentucky is here briefly summarized. This project was planned to bring natural gas through an independent pipe line from the Kentucky fields to Detroit and intervening points.

In 1927, Alfred Howell (F. T. C. 82: 326-339), an experienced natural gas operator and promoter, organized Inland Gas Corporation, herein-

after referred to as "Inland." In 1928, he organized Kentucky Fuel Gas Corporation, hereinafter referred to as "Kentucky Fuel." Inland acquired natural gas acreage in northeastern Kentucky, and, in 1929, built a natural gas transmission line from this field to the city of Ashland, Ky., a distance of approximately 150 miles. Kentucky Fuel acquired acreage near Ashland with gathering lines and a transmission line running into Ashland. Kentucky Fuel acquired certain properties near Ashland from the American Rolling Mills Co. and obtained a contract from it to supply it with its large natural gas requirements. On July 17, 1928, the owners of the common stock of Inland and Kentucky Fuel organized American Fuel & Power Co., hereinafter referred to as "American," and transferred to it substantially all of the common stock of Inland and Kentucky Fuel in exchange for American common stock.

In 1928, both Inland and Kentucky Fuel had operating losses. In the spring of 1929, American raised \$2,000,000 through a note issue and loaned the money to Inland and Kentucky Fuel to acquire additional acreage and to increase their markets. When Inland and Kentucky Fuel continued to lose money, in 1929, the holders of American's common stock decided that larger markets must be reached. Therefore, in February 1930, the possibilities of a natural gas transmission line from the fields in northeastern Kentucky to Detroit were examined, and it was decided that it would be financially feasible to build such a line.

At that time, American was controlled by the bankers who had originally sold Inland and Kentucky Fuel bonds and debentures to the public. On March 22, 1930, a controlling stock interest in American was sold to a syndicate consisting of Hope Engineering Co., which had been managing the properties, American Utilities and General Corporation, a financial institution, and Moody-Seagraves Co., a corporation having had extensive experience in Texas and the Southwest in the promotion and construction of natural gas pipe lines, and the syndicate announced its intention to build the natural gas pipe line to Detroit (F. T. C. 82:360). Actual construction of a line was started in the spring of 1930, and prior to October 1930, 50 percent of the necessary right-of-way had been purchased, river crossings had been started, some pipe had been laid, and firm contracts had been obtained or promises given in Detroit for sufficient natural gas to assure the financial success of the line. The right-of-way, fully surveyed, passed through the heart of the territory in which Columbia Gas and Electric enjoyed its monopoly. The route passed near Columbus and Toledo where Columbia was selling gas without competition.

After these subsidiaries of American, in Ashland and vicinity, came into competition with two Columbia subsidiaries, namely, Warfield Natural Gas Co. and United Fuel Gas Co., Columbia began buying bonds and debentures of both the Inland and Kentucky Fuel, with the result that Columbia acquired 35 percent of the outstanding bonds of the Inland and 42 percent of the outstanding bonds of Kentucky Fuel, and certain notes or debentures of each, at a total cost to Columbia of \$3,447,919 plus commissions. These acquisitions had been completed in 1930 (F. T. C. 47: 258-266, 568-569, 782; 52: 155, 191, 664; 62: 317; 68: 511; 82: 351-361; 84-A: 266-268, 288).

On October 30, 1930 (7 days after Columbia obtained control of the Panhandle-Eastern pipe line by purchase from Missouri-Kansas Pipe Line Co.⁸), Columbia purchased from the syndicate its control of American, represented by 76 percent of the total outstanding common stock and all of the outstanding stock of Howe Oil & Gas Co., Bridge Gas Co., Northern Gas Co. (Ohio), Northern Gas Co. (Delaware), and Northern Industrial Gas Co. These latter named corporations had been used by the syndicate in various capacities in connection with constructing the pipe line from northeastern Kentucky to Detroit and in connection with obtaining contracts for the sale of natural gas in Detroit. The contract under which Columbia obtained control from the syndicate required that Columbia nominees be made directors of all of the companies. As of November 6, 1930, Columbia nominees were placed in control of American, Inland, Kentucky Fuel, and the other corporations above named.

Not merely was the Detroit Line stopped, but W. E. Lockhart, then president of Inland and Kentucky Fuel, was instructed not to expand the Inland or Kentucky Fuel markets, nor to take on new business, nor to sell gas to any user for less than 25 cents per M cubic feet. Mr. Lockhart then as president, and later as receiver, under Columbia's supervision, agreed to and did carry out these instructions (F. T. C. 52:676, 680-681, 718, 720; 68:510-511; 82:359; 83:331-336).

On November 25, 1930, the executive committee of Columbia passed a resolution directing that Inland and Kentucky Fuel be placed in receivership (although at that time they were not insolvent), and instructions were given and carried out accordingly. After some difficulty creditors were obtained and induced to act as plaintiffs in receivership proceedings. The plaintiff who executed and filed a bill for the appointment of a receiver against Inland did so, only after being assured by Columbia that the full amount due him would be paid. He was a driller at that time, working on a contract which had not been completed. He filed as a creditor for the pro rata amount of work which had been completed. He completed the work and was paid his full amount by Warfield Natural Gas Co., a subsidiary of Columbia, which was later, without court order or authority, repaid in full by Mr. Lockhart as receiver of each company.

The consequence of this dominance was that further construction of the Kentucky-Detroit projected natural gas line was stopped by Columbia's orders, although much of the right-of-way had been acquired and certain construction had been done, and a large number of industrial contracts for gas in Detroit had either been signed or promised. To stop this partially-on-its-way project and potential competition, Columbia paid to the syndicate backing it \$2,826,789.28, and also paid to the Hope Engineering Co. a prospective construction profit because of the cancelation of their construction work, in the amount of \$483,600. It also agreed to hold the syndicate members harmless for their failure to carry through and make good on their promises and contracts, among which were included the commitment for large quantities of gas in Detroit where Mr. O. R. Seagraves, of the syndicate, had been actively directing the solicitation of contracts for natural gas to come in over that line.

⁸ Although the contract was dated September 17 (F. T. C. 84: 1535) control was not taken over until October 22.

In consummating this deal it seems fair to assume that the Columbia's position as the holder of such a large percentage of the bonds and open notes of the American Fuel & Power, and its subsidiaries, was of great leverage in the dealings which gave Columbia this control.

Immediately following the receivership, Columbia caused two so-called protective committees to be organized. At present these committees are seeking to have a plan approved which will fully secure and confirm Columbia's control of these properties.

The entire story of this Columbia-American Fuel situation is a glaring example of delays from dilatory tactics by friendly receivers. Although Columbia stepped into its controlling position as to these companies in October 1930, it was not until June 30, 1937, that an active receiver, who considered the interests of other than Columbia, superseded the one friendly to the Columbia. Such supersession, after further investigation and preliminary hearings, resulted in a finding by the United States District Court for the Eastern District of Kentucky that "there is a meritorious cause of action under the antitrust laws of the United States against Columbia Gas & Electric Co., et al., in favor of Ben Williamson, Jr., trustee of Inland Gas Corporation," and instruction that Mr. Williamson bring antitrust actions against Columbia Gas & Electric Corporation. Such action was instituted in Delaware on February 14, 1938, and is still pending.

In its utilities investigation made at the direction of the Senate, the Federal Trade Commission investigated the Columbia Gas & Electric Corporation, and its subsidiary companies, and their treatment of American Fuel & Power Co. and its subsidiaries, and in its interim reports filed with the Senate under dates of November 15, 1932 (F. T. C. 47) and April 19, 1933 (F. T. C. 52) disclosed quite fully the above-described activities of Columbia in preventing the completion of the project to build the natural gas pipe line from northeastern Kentucky to Detroit. On November 4, 1938, the Department of Justice instituted a suit in the United States District Court for the District of Delaware by the United States Government against Columbia Gas & Electric Corporation and certain of its subsidiaries, officers, and directors, charging violations of the antitrust laws in those transactions.

OMAHA, NEBR., LINE

The logical direction of pipe lines from the Panhandle and the Hugoton, Kans., fields to eastern markets was through Omaha, which was itself one of the important nearer markets. For that reason there was keen competition among all the major gas utility companies operating in that area to capture that market. The final result was in the nature of a compromise in which three important interests in 1930 joined in the organization of the Northern Natural Gas Co. to take over a line already under construction by the Moody-Seagraves interests. These three interests or their financial affiliates were already large in the electric and manufactured gas fields in the areas adjacent to Omaha. By this combination of ownership of the natural gas pipe line, they successfully fended off any hostile or independent gas source in that territory. In re-formation of Northern Natural Gas Co., the

following is quoted from the Federal Trade Commission Utility Report (F. T. C. 83:2681).

* * * Northern Natural Gas Co. was organized, and is still jointly controlled by three electric and gas public-utility interests, namely:

Common-stock ownership:	Percent
North American Light & Power Co.-----	35
United Light & Railways Co.-----	35
Lone Star Gas Corporation-----	30

* * * The principal reason for the participation of these three interests in the formation of Northern Natural Gas Co. appears to have been the desire to control directly the source of natural gas coming into the respective territories of each of the present owners.

* * * * *
Importance of the Omaha, Lincoln and Sioux City markets in gas pipe-line developments.—

* * * * *
 In the development of these three existing long-distance pipe lines originating in the Texas Panhandle, the route of each of the lines as originally proposed was such as to bring gas into the Omaha industrial area. This was a quite logical direction for projects to take. The eastern Texas and Louisiana industrial areas are near large gas reserves in Louisiana and Texas. The southeastern Kansas and Kansas City, Mo., industrial areas were already served by Henry L. Doherty natural-gas interests, drawing their supplies from Kansas, Oklahoma, and Texas fields. Consequently, after acquiring gas reserves, the next step in the planning of each of the pipe lines was to give consideration to the possibility of picking up the Omaha market as part of any project to take gas to the north and northeast toward St. Paul, Minneapolis, Chicago, Milwaukee, and other North Central industrial localities. The result was sharp competition for contracts and franchises to supply gas in the Omaha area in which both promoters of proposed lines and operators of gas utilities within or adjacent to the area participated.

As already stated, the line now owned by Northern Natural Gas Co. was originally a Moody-Seagraves project, having for its object the transmission of natural gas to Omaha and beyond to the Sioux City, Iowa, and Minneapolis-St. Paul markets. The route selected for the project caused its pipe line to pass through central Kansas directly across the area in which North American Light & Power Co. interests were at that time developing Kansas Pipe Line & Gas Co. and various other oil and gas producing and distributing interests now controlled by Kansas Power & Light Co. of the North American Light & Power Co. To the north of these areas, the pipe line would cross territory in which Iowa-Nebraska Light & Power Co. of the United Light & Power Co. system, owned both electric and manufactured-gas services. The building of the proposed pipe line would bring natural gas into direct competition with the manufactured-gas properties of these utility organizations in eastern Nebraska and western Iowa. It would also bring natural gas within comparatively short distance of the Des Moines properties of North American Light & Power Co., where both gas- and electric-utility properties were owned.

In Texas, the reserves of the proposed Moody-Seagraves line were in the eastern half of the Texas Panhandle area and adjacent to those of Lone Star Gas Co. The last-named company is closely affiliated with Columbia Gas & Electric interests, the largest stockholdings and management being controlled by the same group of individuals occupying key positions in both groups of companies. * * *

Others interested in the Omaha market.—Prior to this time, however, other interests were also negotiating for Omaha, Lincoln, and various other markets in eastern Nebraska. It is claimed by officials of Northern Natural Gas Co. that contracts to sell gas in Omaha were not essential to the construction of their pipe line, and that their company was not directly concerned about the efforts made by others to sell gas in Omaha. For a time, it appeared that Ohrstrom and affiliated Omaha interests would be successful in obtaining a contract to sell natural gas to the municipally owned gas system of Omaha. Had this contract been obtained, it appears that the Ohrstrom interests contemplated building a pipe line to Omaha. This project, however, failed, due to the fact that by referendum vote a contract entered into by the city council with the Ohrstrom interests was rejected by a 7-to-1 vote.

At about this time also, Frank P. Parish, having acquired gas reserves in Texas Panhandle and in the newly discovered Hugoton field, had a project to build a pipe line to Omaha. In addition, Doherty interests had under consideration a project to extend their gas system up the Missouri Valley from the Kansas City area to reach Omaha. All four of these interests submitted bids for the Omaha municipal contract. The direction taken by the Frank P. Parish line, now owned and operated by Panhandle Eastern Pipe Line Co., was changed as a result of negotiations between the Parish and North American Light & Power interests, as a result of which the latter agreed to purchase its requirements of natural gas for public-utility purposes in the Missouri and Illinois territories from the Parish pipe line, provided the direction of the line was changed from Omaha and St. Paul to its present direction through central Missouri and central Illinois in the direction of Indianapolis, Ind.

Following the referendum vote by which the people of Omaha refused to ratify the contract upon which the projected Ohrstrom line was based, the Ohrstrom project was abandoned. This left Northern Natural Gas Co. and the Doherty interests still in a position to serve the Omaha market. The final outcome was that Northern Natural Gas Co. obtained the market including both large industries that could be served without a franchise from the city, and the natural-gas contract for enriching purposes with the municipally owned gas system. The latter, however, was not obtained until the spring of 1934. * * *

WASTAGE OF NATURAL GAS

WAYS IN WHICH NATURAL GAS IS WASTED

Prodigal wastage of natural gas has been a characteristic of the flush production period of practically all producing areas. This feature of the industry has been the object of study by various agencies for years. A report issued by the United States Bureau of Mines as early as 1913 discussed waste of natural gas and crude petroleum in the Mid-Continent fields, and made recommendations respecting the reduction and prevention of waste. Later Federal and State authorities, companies engaged in the production of gas, and utility company engineers and executives have studied and made recommendations concerning the waste of gas. Certain States have passed legislation for its prevention along certain lines.

In discussing waste, it should be kept in mind that there are two distinct senses in which the term may be used, namely, physical waste, and what is commonly referred to as "economic waste." Physical waste, as applied to natural gas, is a definite term covering any loss or destruction of the natural gas without some useful result. Economic waste covers any loss of natural gas without equivalent gain or saving. Physical waste of natural gas in connection with oil production may, under certain circumstances, not constitute waste in an economic sense. On the other hand, the use of dry, sweet natural gas for certain purposes, such as the extraction of gasoline after which the residue is blown to the air or for the manufacture of carbon black, may constitute economic waste from a broad public viewpoint, although from the viewpoint of the natural gasoline or carbon-black producer it may not constitute waste.

The most important cause of waste of natural gas arises out of the fact that such a large proportion of the total natural gas is produced in connection with the production of crude petroleum, and is due to the fact that neither gas nor crude petroleum can be produced independently of the other. Where the two occur together, production of neither is subject to control independently of the other. Consequently, the quantity of natural gas produced in some areas is dependent primarily upon the demand for and production of crude petroleum. In the absence of adequate uses or markets for the gas, the gas is wasted.

Another source of wastage of natural gas produced in crude petroleum operations results from the fact that when oil men drill wells high on the producing structure and get only gas, the practice is frequently followed of permitting wells to blow freely to the air in the hope of causing them to produce oil. Large volumes of natural gas have been wasted in this way. A typical instance of such wastage was that from the Blossom sand of the Cotton Valley oil field of Webster Parish, La., where in 1924 billions of cubic feet of natural gas were blown into the air in an effort to bring oil into the wells. Such wastage of gas also results in reduced recovery of oil, due to loss of energy of gas under pressure which is now recognized by engineers

as the most effective force available to force oil from its position in the sand to producing wells.⁹

Another way in which natural gas is wasted in crude oil production is in the completion of wells in such a manner as to permit the escape of natural gas from purely gas-producing strata overlying the oil-producing formations to other porous strata, or to the oil-producing stratum where its pressure may be used to lift oil to the surface. Gas used to lift oil generally is blown to the air if there is no market. Both faulty completion of wells and use of dry gas from other formations to lift crude petroleum has resulted in large wastage of gas that need not have been produced at all with the crude petroleum recovered. "Recognized sound practice is to drill and open at the bottom of the deepest oil sand and thus to utilize the gas there and then throughout the various sands upward in order to fully exploit the several superimposed oil sands."

Still another factor in connection with crude petroleum production that makes for waste of natural gas, even in old fields where there are gas pipe lines developed to take natural gas to market, is the fact that maximum demand for crude petroleum normally occurs in the summer when demand for gas is at the minimum. Where the result is summer production of natural gas in excess of pipe-line demands, wastage could sometimes be reduced by returning the gas to its natural reservoir as a means of conserving it and of saving and using again its expansive energy as an aid to increased crude petroleum recovery.

Early wastage of dry gas in the Appalachian producing region appears to have been due largely to two causes, namely, failure in some quarters to recognize that natural gas is an exhaustible resource and lack of marketing facilities. More recently, however, the wastes that have occurred in new fields have been due in many cases to the fact that discovery of dry gas was made by oil producers to whom the gas was more or less of a nuisance in the absence of facilities for getting it to market.

Still another source of natural gas wastage is the wide-open blowing of wells after they are capped to determine periodically their open-flow capacities. Likewise, the blowing of wells to remove accumulations of water, sand, and debris that collect in the bottom and interfere with the production of gas, result in loss to the air of considerable quantities of natural gas.

Considerable wastage and loss of natural gas occur after it has been removed from the earth. Leaks in pipe lines result in loss in transportation and distribution. One converted screw-joint oil pipe line in operation as a gas line in Nebraska and Kansas at the outset of use lost about 40 percent of the gas put into it. After it had been overhauled the wastage was decreased to about 20 percent, but still remained large as compared with the almost negligible leakage of gas trunk pipe lines of modern construction.

The conversion of local manufactured gas distribution systems to the delivery of natural gas often is attended by considerable waste, due to the fact that the dry natural gas absorbs moisture and oil from joints in mains that effectively sealed them against leakage of manufactured gas. Quite often, also, consumer equipment is either of poor design, or is so poorly operated as to result in considerable wastage of gas, largely through inefficient combustion or inefficient

⁹ See Report V of the Federal Oil Conservation Board of the United States, 1932, p. 52.

application of heat produced. All such waste due to the operation of ill-adapted distribution facilities and consumer apparatus is avoidable, but only by incurring additional capital expenditures on the part of natural gas distribution companies and consumers. Such losses, although of considerable magnitude, are far less important than losses occurring in the production of crude petroleum and natural gas.

Another source of large natural gas wastage is that resulting from the extraction of gasoline from both wet and dry gas in the fields, and the blowing of residue gas containing as much as 97 percent of the original heating value of the gas to the air. This wastage occurs only when adequate markets and marketing facilities to take current production are lacking. The most striking example of it that has occurred in recent years is the wastage of dry, sweet gas after the extraction of gasoline in the Texas Panhandle field.

EXTENT OF WASTAGE

Authoritative data indicating the full extent of either past or present wastage of natural gas in the United States as a whole are not available. Data have been compiled to show wastage only in certain areas and these are generally based upon estimates. An estimate of the waste of natural gas in the United States, covering the period from 1919 to 1930, inclusive, has been presented by Henry A. Ley and is as follows:

TABLE 3.—*Estimated waste of natural gas in the United States*

[Million cubic feet]

	Blown to air—					Total wastage	Total domestic consump- tion
	Drilling oil wells	Drilling gas wells	Pro- ducing oil	In Calif- ornia	Casing- head gas Amarillo		
1919.....	104, 830	69, 925	37, 836	-----	-----	212, 591	255, 743
1920.....	121, 110	66, 850	44, 293	6, 020	-----	238, 273	286, 001
1921.....	71, 750	63, 925	47, 218	10, 000	-----	192, 893	248, 334
1922.....	86, 690	63, 975	55, 753	26, 600	-----	233, 018	254, 413
1923.....	81, 395	71, 350	73, 241	190, 114	-----	416, 100	277, 050
1924.....	72, 720	71, 150	71, 394	127, 422	-----	342, 686	285, 152
1925.....	82, 615	73, 525	76, 374	91, 494	-----	324, 008	272, 146
1926.....	94, 775	67, 650	77, 067	85, 280	92, 000	416, 792	289, 175
1927.....	73, 355	62, 275	90, 113	74, 185	144, 000	443, 928	296, 036
1928.....	62, 460	68, 175	90, 147	77, 591	114, 000	412, 373	320, 877
1929.....	77, 545	74, 750	100, 732	248, 476	90, 000	588, 503	359, 853
1930.....	57, 240	71, 650	89, 627	264, 000	70, 000	552, 517	376, 407

Source: Geology of Natural Gas, edited by Henry A. Ley, American Association of Petroleum Geologists, Tulsa, Okla., 1935, p. 1095.

The above table would indicate that in 1919, the total wastage of natural gas was considerably less than the total used for domestic consumption, but that by 1923 to 1930 (the latest year for which estimate was made), the quantity of natural-gas wastage far exceeded its total domestic consumption.

During the period of natural-gas production in the Texas Panhandle through June 30, 1934, it is estimated that 50.2 percent of the total natural gas taken from the earth was wasted. For the year 1926 and earlier, the proportion wasted was almost 89 percent. The lowest wastage for any year covered by the estimates was that for 1932 when 28.3 percent was wasted. During the first half of 1934 the proportion of waste had increased to 43.3 percent. (F. T. C. 84-A: 95)

OTHER SPECIFIC MONOPOLISTIC EVILS AND PRACTICES

The Federal Trade Commission in its final report (84 A) discussed more at length most of what has been briefly sketched in this report, as well as other matters. It presented its conclusions and recommendations in 84-A, and legislation has already been enacted to remedy some of the evils disclosed.

Sixteen specific evils are enumerated (615-6). Very few, if any, of them could have come into being or could continue, if either effective competition or effective regulation had existed. Some of these evils appear to indicate some characteristics of monopolistic control, either regionally by each group, or by concert of action and refraining from interfering with each other's distribution areas.

In its final report the Commission stated (F. T. C. 84-A: 615-616):

* * * From among the many conditions affecting the industry, the following may be set out as some of the positive evils that have been found, the correction or prevention of which would, in many instances, require extension of regulatory authority over the natural-gas industry.

- (1) A great waste of natural gas in production.
- (2) Excessive cost of natural-gas production through extravagant competition in drilling wells.
- (3) Unregulated monopolistic control of certain natural-gas production areas.
- (4) Unregulated control of pipe-line transmission and of wholesale distribution.
- (5) Discrimination in some instances in field purchases of natural gas, and refusals to purchase from independent producers.
- (6) Unregulated competition in building natural gas pipe lines to markets.
- (7) Costly struggles between rival natural-gas interests to conquer or defend territories of distribution.
- (8) Excessive and inequitable variations in city gate rates for natural gas among different localities.
- (9) Pyramiding investments in natural-gas enterprises through holding companies; with attendant evils.
- (10) Excessive profits in many natural-gas sales between affiliated companies.
- (11) Inflation of assets and stock watering of certain natural-gas companies.
- (12) Misrepresentation of financial condition, investment, earnings, etc., of some natural-gas operating and holding companies.
- (13) Reckless financing and stock manipulation by certain natural-gas holding companies.
- (14) Exploiting subsidiary natural-gas companies through fees for construction, management, promotion, etc.
- (15) Exaction of excessive bonuses or commissions by investment bankers in connection with financial transactions with natural-gas companies in certain instances.
- (16) Exaction of excessive fees and bonuses or commissions by officials of certain companies in connection with sales and construction of properties.

Besides these specific evils, various others might be mentioned, which generally are of less importance.

EFFORTS BY STATES TO REGULATE THE NATURAL GAS INDUSTRY

Section 4 of chapter XII (F. T. C. 73-A: 13-28) of the Federal Trade Commission's investigation discusses efforts by States (mostly ineffective) to afford some remedy by regulation. In the same volume (79-82) is a short study citing 23 natural gas cases prior to July 25, 1934, in which State regulation was challenged and delayed by utility companies, under the allegation of engagement in interstate commerce. Such challenge has persisted and increased up to the present. Exhibit 17, attached hereto, brings this case study to date. The Congress has placed interstate pipe lines under the jurisdiction of the Federal Power Commission in order to remedy this situation.

In Federal Trade Commission 84-B: 77-89 is a summarized statement of State laws concerning pipe lines up to July 1934. This study has not been brought up to date because they show sufficiently the bases on which the States attempted to handle the problem, and in 1938 the Federal Natural Gas Act was passed.

EXHIBIT 1

HISTORICAL OUTLINE OF NATURAL GAS INDUSTRY IN THE UNITED STATES

The trade magazine "Natural Gas," in the May 1935 issue, contains an article by J. D. Creveling entitled "A Brief History of the Natural Gas Industry" (p. 5). The article is described as a brief compilation intended to convey a general idea of the growth of the industry. The article is by one within the industry. It is not adopted, but excerpts and paraphrases of parts of it are incorporated herein as informative and pertinent, especially as to the recent rapid expansion and consolidation of the industry through extensive pipe line construction.

EARLIEST DISCOVERIES

Natural gas occurs in the pore space of rocks which were originally deposited as sediments in the seas covering the present lands in past ages. Organic matter buried with the sediments was converted to natural gas (or petroleum) by the heat and pressure due to burial of these beds of sediment under other beds and to other earth processes. The process of formation is undoubtedly a very slow one but when once formed in a rock bed which is sealed from the surface by overlying beds, the gas remains in place indefinitely. All commercial deposits of gas are very old and some have undoubtedly remained in their present locations for millions of years. Gas being withdrawn from these deposits is not being replaced and additional deposits are not being formed at any appreciable rate.

EARLY HISTORY IN THE UNITED STATES TO 1900

The history of the use of this fuel in the United States is more interesting because its development was almost continuous * * * through various stages of development and utilization to its present position of third place among the fuels in a country which uses more fuel per capita than any other in the world. * * *

In 1815, gas was produced from a salt well at Charlestown, W. Va.

* * * In 1821 gas arising from a spring at Fredonia, N. Y., was ignited accidentally by a lantern. Near this spring, during the same year, the first gas well was completed to a depth of 27 feet.

The earliest authentic record of a commercial use of natural gas is June 4, 1825, Fredonia, N. Y.

In the United States, its first industrial use was in 1840. It was first used as a fuel to generate steam and for light in 1859. The first pipe line, made of bored logs, was laid about 1870 from West Bloomfield, N. Y., to Rochester.

DISCOVERIES OF GAS INCIDENTAL TO SEARCH FOR OIL

Most discoveries of gas have been made in the search for oil. Early in the history of the oil industry it was found that oil, gas, and water occupy spaces in porous rock, and, naturally, since oil is lighter than water, it will rise above the water, and for the same reason the gas will be found above the oil. If a well should be drilled into the top of such a porous bed of rock, gas would flow out. Later, if oil should be present below the gas, oil would follow, and many a gas well has been allowed to blow into the air with the hope that oil would follow the gas. There have been some cases in which large deposits of gas have been found not associated with oil, and in many cases these have been considered entirely valueless, though in some cases it has been possible to utilize the gas.

ATTENDANT PROBLEMS

Two things follow from the fact that gas has been found in the search for oil. First, the gas was found in oil fields, which were not always, and in fact not often, near to markets which could consume large quantities of gas. Oil is a concentrated fuel of small bulk in proportion to its heat value; also it is a liquid and can be transported by rail, ship, or pipe line, and because it can be thus transported and stored easily, it can be utilized where it is most needed and it has been found profitable to move it from distant fields to waiting markets. When gas was found, it was utilized as far as possible in the oil fields, and for refinery purposes when refineries were located within reach. Gas not needed for these purposes and having no market close at hand could be used only after transportation over long distances, and methods and materials for doing this had not been developed.

Second, gas was found by men not primarily interested in it, but in oil, whose sole training had been in the handling of oil, and who had little interest in the transportation of gas and the selling of it to domestic consumers in the cities.

It was under such circumstances that the fields of New York, Pennsylvania, West Virginia and Ohio in the East were developed and become of great importance. Not only were the resources developed and gas utilized for industrial and domestic purposes, sometimes at considerable distances from the source of supply, but methods of drilling, piping, measuring and burning the gas were worked out so that when supplies were found in other districts means were available for their utilization.

FIRST IRON PIPE LINE

The first long iron pipe line was laid in 1872. This was a 2 inch line, 5½ miles long, leading from the Newton well to Titusville, Pa. In 1873 natural gas was first used as fuel in the pottery industry in East Liverpool, Ohio. In 1874 the first use of natural gas in connection with the iron and steel industry was made at Leechburg, Pa. Up to about this time, industrial users had piped their own gas from wells drilled by others, but soon after this, corporations were organized to produce and transport the gas. The first of these, known as the Chartiers Valley Gas Co., was formed by manufacturers in 1883 to bring gas to the mills and glass houses of Pittsburgh. During this period the importance of natural gas in the iron and steel industry increased rapidly. In 1884 Andrew Carnegie said that one natural gas company had 335 miles of pipe lines within the city of Pittsburgh and was supplying a quantity of natural gas which would displace 10,000 tons of coal per day.

These undertakings marked the beginning of what has grown to be a great industry in America. During that period many wells were being drilled throughout western Pennsylvania, New York, Ohio, and West Virginia, in the search for oil, and since much natural gas was also found, the small enterprise at Titusville was soon repeated and enlarged upon as to other towns and cities throughout all this region. Buffalo, Cleveland, Youngstown, Cincinnati, and Toledo, all great industrial centers like Pittsburgh, were early supplied with natural gas as fuel through the agency of transmission pipe lines extending to them from distant wells, and they are still so supplied.

FIRST LONG DISTANCE HIGH PRESSURE TRANSMISSION

The pipe lines laid for transmitting natural gas in these States between the years 1872 and 1890 did not generally exceed about 8 inches in diameter. * * * At that period the transmission pipe lines were not of great length because of the location of gas wells with reference to the cities supplied. In 1891 the Indiana Natural Gas & Oil Co. laid two parallel pipe lines, 8 inches in diameter, a distance of 120 miles, from natural gas fields of Northern Indiana, now long since depleted, to Chicago, Ill. The pipe line was constructed of wrought iron pipe, connected with screwed couplings, and the gas was transmitted under an initial pressure of 525 pounds per square inch. This enterprise marked the beginning of long-distance high pressure transmission in the United States.

The early mid-continent discoveries and rather slow development took place in Kansas, at or near Iola, Paola, W. Scott, Coffeyville, and Independence.

MID-CONTINENT DEVELOPMENT 1900-1925

In 1904 the gas producers in this territory consolidated their interests and formed the first important natural gas transportation company in Kansas, known as the Kansas Natural Gas Co. Construction work was immediately started on a 16-inch pipe line from the Allen, Neosho, and Wilson County fields to the Kansas City area and on a 16-inch pipe line from the Montgomery field to Joplin, Mo.

The second major natural gas transportation company in this area was the Wichita Natural Gas Co., which began in 1906 and completed in 1907 the construction of a 12-inch pipe line from Montgomery County field to Wichita, Newton, Hutchinson, and nearby cities in Kansas.

Other discoveries were made and other lines built, but until 1912 or later sufficient attention was not given to the matter of reserve supply.

During this period, excepting the first few years, these major pipe line companies depended to a large extent upon gas purchased from various independent producers.

Eastern capital came in 1912, and the era of unification and consolidation began. From 1900 to 1925, discoveries and developments were made in a number of States, but the greatest expansion up to 1925 was made in the eastern or Appalachian area, because of usefulness in that industrialized area.

But in the 100 years from its first commercial use, the natural gas industry, though fairly sizable was still largely local, a 300 mile pipe line being the longest then laid. In 1925, customers in 23 States, including industrials and all classes, were served 1,190,000,000 M cubic feet (including therein, mixed gas).

By 1925, two of the world's largest known gas reserves—Monroe, La., and Amarillo, Tex.—had been developed to a point so much in excess of nearby market requirements, that studies were begun to determine the feasibility of transmitting this gas longer distances where large potential markets existed.

This problem was solved by developing electric welding of pipe, or the so-called "seamless pipe," and by automatic ditch-digging machines, so that now natural gas is at the city gates, or reasonably near to the city gates of all the large cities of the United States, except New England and in some of the Southeastern States, and it only remains for the Federal and State authorities, in cooperation, to compel the private companies who control these natural resources to offer it to the public.

One of the most amazing developments in modern industry has been the industrial use of gas, in everything from the manufacture of carbon black, cement, fertilizer, and glass, to the tempering of pen points and watch springs. All together, more than 20,000 industrial processes make use of gas.

Although the present era has often been called the age of electricity, many times as much energy is produced in the United States each year by gas as is produced by electric power. Consequently, gas is one of the greatest of all American industries. In it almost \$5,000,000,000 are invested, which is more than the capital invested in the steel industry, while the revenues of the entire industry in 1937 were more than \$800,000,000, and it employs directly more than 135,000, with an annual pay roll in excess of \$213,000,000. The wages of its employees average \$1,575 a year for a 40-hour week.

For 1937, the production of natural gas for the year reached a new peak of 2,447,620,000 cubic feet, or nine times the total amount of electrical energy generated and produced in the same period. This total represents a gain of 13 percent over 1936, the same relative increase as was registered in 1936 over 1935.

Of the 2,443,041,000,000 cubic feet of gas consumed in 1937, 691,320,000,000 cubic feet (28 percent) was used for field purposes; 371,844,000,000 cubic feet (15 percent) was used for domestic consumption; 117,390,000,000 cubic feet (5 percent) was used by commercial consumers; 341,085,000,000 cubic feet (14 percent) was consumed in the manufacture of carbon black; 170,567,000,000 cubic feet (7 percent) was consumed at electric public utility power plants; 113,005,000,000 cubic feet (5 percent) was consumed as petroleum refinery fuel; leaving 637,830,000,000 cubic feet (26 percent) consumed for other industrial purposes. Compared with 1936, these data reflect chiefly gains in carbon-black and refinery uses at the expense of domestic consumption and field use.

The number of domestic and commercial consumers of natural gas increased from 8,674,000 in 1936 to a new high of 9,028,000 in 1937. Of these consumers, 2,410,610 used mixed gas in 1937.

The industry was operating 53,960 gas wells at the beginning of 1937; 2,834 new wells were drilled; and 2,354 were abandoned, leaving 54,440 active at the close of the year. The number of abandonments was higher than in 1936, but the ratio to wells drilled was lower.

With this background and picture of present day size and importance, we now touch briefly on concentration in the natural gas industry. With the advent of the holding company as a business device for placing in the hands of a small group of men control over a large number of individual business units, the production and distribution of gas became concentrated in a few large organizations, each controlling a wide territory which included a number of States. The discovery of new fields rich in natural gas and the development of pipes capable of carrying gas great distances under high pressure made it possible to convey cheap natural gas hundreds of miles from the producing fields to large communities where, due to the high cost of artificial manufacturing, gas rates were high. The natural gas industry was transformed from an aggregation of local organizations to an industry of national proportions of vital concern to the national public interest.

Notwithstanding the comparatively low cost of producing and transporting natural gas, these large organizations, in bringing natural gas to such communities, endeavored to maintain as nearly as possible the same rate structure as would prevail with artificial gas. The few large holding companies controlling the greater part of the business soon found it to their mutual advantage to recognize territorial rights and to allocate territory to the end that each should monopolize the business in certain areas and stay out of the territory occupied or claimed by another. Without the competition of any rival line, such an organization to be completely successful need only take steps to preserve its rate structure before public service commissions and the courts. There were ample legal and accounting devices available for a successful defense of rates in these forms.

There was always danger, however, that an independent group, attracted by the large profits to be made, would obtain gas reserves

in one of the large producing fields where natural gas could be obtained cheaply and would then extend a line into the territory of one of the large holding companies. This constituted a real threat of competition, through the offering of cheap gas to break down the rate structure maintained by the holding company, dominating the particular territory. Such independent groups were called "raiders." Wherever such a group attempted to do business the natural course of the large holding company whose territory was threatened was either to destroy or to buy it out. Such activities were clearly against the interests of independent gas well owners, prospective markets, and consumers in general. Two examples, of such a "raid" was Panhandle Eastern and American Fuel & Power Co. efforts to build a line to Detroit, through Columbia Gas & Electric territory. Both companies were forced into bankruptcy, resulting in ultimate control by one of the "Big 4," viz, Columbia.

EXHIBIT 4

Shares and percents of voting stock held by the John D. Rockefeller interests in oil companies which are also engaged in the natural gas and the natural gas pipe line industries as of Jan. 1, 1939

[Compiled from information furnished the Federal Trade Commission by the companies]

Stockholders	Shares of voting stock held								
	Standard Oil Co. of New Jersey	National Fuel Gas Co.	Socony- Vacuum Oil Co., Inc.	Standard Oil Co. (Indiana)	Ohio Oil Co.	Standard Oil Co. of California	Consolidated Oil Corpora- tion	South Penn Oil Co.	The Atlantic Refining Co.
John D. Rockefeller, Jr.	1,741,457		2,382,469		296,500	963,228			
Mrs. Alta Rockefeller Prentice	55,094		106,980	41,460			114,537		
Chase National Bank, trustee	699,785		2,547,995	896,090	280,929	637,750	224,300		40,000
Rockefeller Foundation	1,093,160	847,060		691,140	94,084				
Rockefeller Institute for Medical Research	124,997			30,000	182,400				
General education	145,617								
University of Chicago				38,034		31,350			
Rockefeller Center, Inc.							500,000		
Associates of John D. Rockefeller, Jr. ²				373,284					
Barton P. Trumbull, et al., trustees			10,700						
Mrs. Abby Aldrich Rockefeller	751		1,540	300					
Mary French Rockefeller	804		1,000						
John D. Rockefeller, 3d			144,150	140					
Mrs. Abbie Rockefeller Milton			160,000					16,392	
Nelson A. Rockefeller			28,300						
Mrs. Mary Clark Rockefeller			35						
Norman L. Rockefeller				120					
Total Rockefeller interests	3,861,165	847,060	5,383,169	2,070,568	854,513	1,635,328	838,837	16,392	40,000
Voting shares outstanding	26,586,639	3,810,183	31,205,610	15,271,772	6,563,376	13,003,953	13,751,846	1,000,000	2,663,999
Percent held by the Rockefeller interests	14.52	22.23	17.25	13.56	13.02	12.58	6.10	1.64	1.50

¹ Trust established by John D. Rockefeller and/or John D. Rockefeller, Jr. for various members of the Rockefeller family.

² A. H. Bates, H. P. Fish, and Robert W. Gumbel.

EXHIBIT 5

Percents of voting stock held by the Morgan and connected interests in electric power and oil companies which are also engaged in the natural-gas and the natural-gas pipe-line industries, as of Jan. 1, 1939

[Compiled from information furnished the Federal Trade Commission or the Securities and Exchange Commission]

Companies whose stock was held	The American Super-power Corporation	The United Corporation	Electric Bond & Share Co.	The United Gas Improvement Co.
	Percent of voting stock held			
Columbia Gas & Electric Corporation.....		19.6		
Columbia Oil & Gasoline Corporation.....		3.1		
Electric Bond & Share Co.....	¹ 1.0	.5		
The Commonwealth & Southern Corporation.....	10.0	5.1	4.6	2.9
Niagara Hudson Power Corporation.....		23.4		8.7
American Water Works & Electric Co.....		2.7		2.7
The United Light & Power Co.....	¹ 1.8			
The United Gas Improvement Co.....		26.1		

¹ Held in the name of Albert P. Taliferro who usually acts as a nominee for the American Superpower Corporation.

EXHIBIT 6

Intercompany holdings of voting stock by the Rockefeller, the Morgan, and connected interests in companies engaged in the natural-gas and the natural-gas pipe-line industries of the United States as of January 1939

[Information furnished by the companies]

Stockholders	Interstate Natural Gas Co., Inc.	Colorado Interstate Gas Co.	Mississippi River Fuel Corporation ¹	Natural Gas Pipe-line Co. of America	Transark Oil & Gas Co.	Southwestern Development Co.	Texoma Natural Gas Co.	Coltco Corporation	Quadrangle Gas Co.
	Percent of voting stock held								
Rockefeller interests:									
Standard Oil Co. of New Jersey.....	54.0	42.5	22.4	13.3					
The Ohio Oil Co.....					50.0				
Consolidated Oil Corporation.....						51.0			
Connected companies:									
Columbian Carbon Co.....	17.3		17.0	2.5				51.0	
Southwestern Development Co.....		42.5		13.3			26.6		
Cities Service Co.....		15.0		26.6	50.0		26.6		26.6
Natural Gas Investment Co. ²				26.6			26.6		
The Texas Corporation.....				17.6			17.6	49.0	17.6
The Mission Oil Co.....						47.3			
United Carbon Co.....			13.4						

¹ 46.7 percent held by United Gas Corporation.

² A subsidiary of The Peoples Gas Light & Coke Co.

Intercompany holdings of voting stock by the Rockefeller, the Morgan, and connected interests in companies engaged in the natural-gas and the natural-gas pipe-line industries of the United States as of January 1939—Continued

Stockholders	Mississippi River Fuel Corporation ³	Panhandle Eastern Pipe Line Co.	American Power & Light Co.	Electric Power & Light Corporation	National Power & Light Co.	United Gas Corporation	Memphis Natural Gas Co.	Northern Natural Gas Co.
	Percent of voting stock held							
Morgan interests:								
Columbia Oil & Gasoline Corporation.....		55.5						
Electric Bond & Share Co.....			20.7	47.2	46.6			
Electric Power & Light Corporation.....						51.3		
National Power & Light Co.....							16.3	
United Gas Corporation.....	46.7							
The United Light & Power Co.....								35.0
Connected companies:								
Missouri-Kansas Pipe Line Co.....		44.5						
Commonwealth Gas Corporation.....							48.0	
The North American Co.....								35.0
Lone Star Gas Co.....								30.0

³ 52.8 percent held by Rockefeller interests and connected companies.

EXHIBIT 7

Principal stockholders¹ in companies affiliated with the Morgan interests

[Information furnished by the companies]

Company and stockholders	Total voting shares outstanding	Voting shares held	Percent of total
The United Corporation.....	17,018,203		
St. Regis Paper Co.....		1,210,666	7.11
The American Superpower Corporation.....		1,013,955	5.96
Geo. W. Crawford Estate.....		91,279	.54
J. P. Morgan & Co.....		26,980	.16
Koppers Co. ²		103,720	.61
Total.....		2,446,600	14.38
Columbia Gas & Electric Co.....	12,344,924		
The United Corporation.....		2,424,356	19.64
Electric Bond & Share Co.....	6,691,851		
Albert P. Taliaferro ³		69,562	1.03
Niagara Hudson Power Corporation.....	10,065,839		
The United Corporation.....		2,351,007	23.36
The United Gas Improvement Co.....		872,453	8.67
Aluminum Ore Co.....		991,098	9.85
Schoellkopf Interests:			
J. F. Schoellkopf, Jr.....		279,293	2.77
Niagara Share Corporation of Maryland.....		302,201	3.00
Niagara Share Corporation.....		176,325	1.75
Knack & Co.....		123,550	1.23
Total.....		5,095,927	50.63
The Commonwealth & Southern Corporation.....	35,173,328		
The American Superpower Corporation.....		3,504,400	9.96
The United Corporation.....		1,798,270	5.11
Electric Bond & Share Co.....		1,624,700	4.62
The United Gas Improvement Co.....		1,004,549	2.86
Total.....		7,931,919	22.55

See footnotes at end of table.

Principal stockholders in companies affiliated with the Morgan interests—Con.

Company and stockholders	Total voting shares outstanding	Voting shares held	Percent of total
American Water Works and Electric Co., Inc.	2,352,950		
The United Corporation		63,002	2.68
The United Gas Improvement Co.		63,000	2.68
Electric Power Associates		35,500	1.50
Total		161,502	6.86
The United Light and Power Co.	1,055,576		
Koppers Co. (Mellon interests)		300,165	28.44
The Chicago Corporation		74,778	7.08
Selected Industries, Inc.		74,778	7.08
Tri-Continental Corporation		69,778	6.61
American Cities Power and Light Corporation ⁴		38,657	3.66
Atlas Corporation		17,500	1.66
American Co.		16,500	1.56
Albert P. Taliaferro ³		19,465	1.85
Total		611,621	57.94
Lone Star Gas System	5,529,747		
Estate of Geo. W. Crawford ⁵		367,201	6.64
Annie Laurie Crawford (Mrs. Geo. W.)		75,252	1.36
Union Trust Co. u/d of trust of Geo. W. Crawford		59,350	1.07
Total		501,803	9.07
Columbian Carbon Co. ⁶	537,406		
Bertha B. Hillis		35,198	6.55
S. Vere Smith		21,371	3.97
Binney & Smith Co.		16,378	3.05
F. F. Curtze		10,000	1.86
Arthur B. & Chas. E. Newton, Jr., trustees		9,140	1.70
F. A. Curtze		7,500	1.40
Louise C. Wilkin		7,500	1.40
Estate of Edwin Binney		5,593	1.04
Total		112,680	20.97
Missouri-Kansas Pipe Line Co.:			
Common Class A ⁷	1,569,807		
William G. Maguire		62,000	3.95
William G. Maguire & Co., Inc.		33,666	2.14
Taff & Co.		59,100	3.77
William W. Dulles		41,817	2.67
Johnson & Ward		38,410	2.45
Colony Realty & Inv. Co.		27,167	1.73
Hillman Land Co.		25,000	1.59
Fahnestock & Co.		21,100	1.34
Total class A		308,260	19.64
Class B ⁷	782,027		
William G. Maguire		87,375	11.17
Kidder Peabody & Co.		51,550	6.59
Lazard Freres & Co.		51,550	6.59
Total class B		190,475	24.35
United Carbon Co.	397,885		
The Home Insurance Co.		10,000	2.51
Oscar Nelson		9,458	2.38
Thorne F. Kablegard		9,221	2.32
Carl H. McHenry		7,674	1.93
Thomas A. Whelan		7,100	1.78
Godfrey L. Cabot		6,552	1.65
Godfrey L. Cabot, Inc.		4,000	1.00
Total		54,005	13.67
Cities Service Co.	⁸ 189,967		
Gas & Electric Securities Co. ⁹		⁸ 65,225	34.34
Henry L. Doherty & Co., Inc.		⁸ 32,712	17.22
Total		97,937	51.56

See footnotes at end of table.

Principal stockholders in companies affiliated with the Morgan interests—Con.

Company and stockholders	Total voting shares outstanding	Voting shares held	Percent of total
The Mission Oil Co.	344, 100		
Albert R. Jones.....		68, 805	20.00
A. R. Jones Oil & Operating Co.....		7, 688	2.23
Josephine Van Leer Jones.....		18, 800	5.46
Frank E. Jones.....		4, 100	1.19
P. C. Spencer.....		13, 688	3.98
United States & International Securities Corporation.....		5, 000	1.45
Total.....		118, 081	34.31
The North American Co.	9, 176, 176		
Harrison Williams ¹⁰		165, 550	1.80
Mrs. Harrison Williams ¹⁰		16, 300	.18
American Cities Power & Light Corporation ⁴		670, 300	7.30
Central States Electric Corporation ⁴		514, 789	5.61
Electric Shareholdings Corporation ⁴		385, 337	4.20
Blue Ridge Corporation ⁴		54, 900	.60
Estate of John I. Beggs.....		285, 520	3.11
Total.....		2, 092, 696	22.80
The Peoples Gas Light & Coke Co.	699, 731		
A wholly owned subsidiary.....		43, 612	6.23
American Cities Power & Light Corporation ⁴		11, 000	1.57
Total.....		54, 612	7.80
The Texas Corporation	10, 876, 882		
M. S. Hill.....		141, 755	1.30
Estate of Dellora R. Gates.....		120, 020	1.10
Total.....		261, 775	2.40

¹ Stocks held by investment houses and banks for customers and by foreign companies have been omitted.

² Mellon interests.

³ No information as to actual owner but Mr. Taliaferro usually acts as a nominee for the American Super-power Corporation.

⁴ Controlled by Harrison Williams on Jan. 1, 1931. (See Ex. 4857, S. Doc. 92, 70th Cong., 1st sess., pt. 33, p. 546, latest information available.)

⁵ Chairman of the board of directors and second largest stockholder of the Columbia Gas & Electric Corporation from the date of its organization until his death.

⁶ All the voting stock except 30 shares is held by George L. Bubb, Reid L. Carr, F. F. Curtze, A. F. Kitchel and S. Vere Smith as voting trustees.

⁷ Both classes of stock are entitled to vote. The common stock elects one director more than the class "B."

⁸ Votes, not shares of stock.

⁹ Closely affiliated with Henry L. Doherty & Co., Inc.

¹⁰ Including wholly owned companies.

EXHIBIT 8

Percentage of voting stock as shown on exhibit 3 in other natural-gas and natural-gas pipe-line companies

[Compiled from information furnished by the companies as of Jan. 1, 1939]

Companies	Percent of voting stock held
Standard Oil Co. (New Jersey):	
The East Ohio Gas Co.....	100.0
Gas Companies, Inc.....	(¹)
Hope Construction & Refining Co.....	100.0
Hope Natural Gas Co.....	100.0
Hope Producing Co.....	100.0
Humble Oil & Refining Co.....	71.6
Interstate Natural Gas Co., Inc.....	54.0
Lycoming United Gas Corporation.....	81.7
Kenka Construction Corporation.....	100.0
New York State Natural Gas Corporation.....	100.0

¹ Stock held in equal parts by the East Ohio Gas Co., Hope Natural Gas Co., and the Peoples Natural Gas Co., wholly owned subsidiaries.

Percentage of voting stock as shown on exhibit 3 in other natural-gas and natural-gas pipe-line companies—Continued

Companies	Percent of voting stock held
Standard Oil Co. (New Jersey)—Continued.	
The Peoples Natural Gas Co.....	100.0
The Columbia Natural Gas Co.....	100.0
Reserve Gas Co.....	² 50.0
The River Gas Co.....	100.0
Colorado Interstate Gas Co.....	42.5
Mississippi River Fuel Corporation.....	22.4
Natural Gas Pipeline Co. of America.....	13.3
National Fuel Gas Co.:	
Gowanda Gas Corporation.....	100.0
Hanover Gas Corporation.....	100.0
Iriquois Gas Corporation.....	100.0
The Mars Co.....	100.0
Mercer County Gas Co.....	100.0
Pennsylvania Gas Co.....	52.1
Pennsylvania Oil Co.....	52.1
Provincial Gas Co.....	70.2
Ridgway Natural Gas Co.....	100.0
St. Mary's Natural Gas Co.....	100.0
Smethport Natural Gas Co.....	100.0
The Sylvania Corporation.....	100.0
United Natural Gas Co.....	100.0
Wanakah Gas Corporation.....	100.0
Socony-Vacuum Oil Co.: ³	
Magnolia Petroleum Co.....	99.9
General Petroleum Corporation of California.....	100.0
Standard Oil Co. (Indiana):	
Stanolind Oil & Gas Co.....	99.0
Shannon Gas & Electric Co.....	100.0
Midwest Wyoming Gas Co.....	50.0
Big Horn Gas Co.....	66.6
Consolidated Oil Corporation:	
Sinclair Prairie Oil Co.....	100.0
Sinclair-Wyoming Oil Co.....	100.0
Repollo Oil Co.....	100.0
The Utilities Co.....	100.0
Southwestern Development Co.....	51.0
Amarillo Gas Co.....	⁴ 100.0
Amarillo Oil Co.....	⁴ 100.0
Canadian River Gas Co.....	⁴ 100.0
Clayton Gas Co.....	⁴ 100.0
Dalhart Gas Co.....	⁴ 100.0
Panhandle Pipe Line Co.....	⁴ 100.0
Red River Gas Co.....	⁴ 100.0
West Texas Gas Co.....	⁴ 100.0
Colorado Interstate Gas Co.....	42.5
The Ohio Oil Co.:	
Billings Gas Co.....	100.0
Enalpac Oil and Gas Co.....	97.5
Rocky Mountain Gas Co.....	100.0
Standard Oil Co. of California:	
Pacific Public Service Co.....	47.0
Coast Natural Gas Co.....	100.0
Standard Pacific Gas Line, Inc.....	⁴ 35.7
South Penn Oil Co.: ³ Cloco Gas Co.....	99.0
The American Superpower Corporation:	
The United Corporation.....	6.0
Commonwealth & Southern Corporation.....	10.0
Electric Bond & Share Co.....	1.0
The United Light & Power Co.....	1.8
The United Corporation: ⁴	
The United Gas Improvement Co.....	26.1
Niagara Hudson Power Corporation.....	23.4
Columbia Gas & Electric Corporation.....	19.6
Public Service Co. of New Jersey.....	13.9
Commonwealth & Southern Corporation.....	5.1
Columbia Oil & Gasoline Corporation.....	3.1
Consolidated Gas, Electric Light & Power Co. of Baltimore.....	2.8
American Water Works & Electric Co., Inc.....	2.7
The Lehigh Coal & Navigation Co.....	2.5
Electric Bond & Share Co.....	.5
Consolidated Edison Co. of New York.....	1.5

² Balance held by Hope Natural Gas Co., a wholly owned subsidiary.

³ Poores' Manual, industrial volume, 1939 edition.

⁴ Poores' Manual, utility volume, 1939 edition.

⁵ Standard Oil Co. of California holds 14.3 percent and Pacific Gas & Electric Co. holds 50 percent.

⁶ From a report to the Securities and Exchange Commission as of Dec. 31, 1938.

Percentage of voting stock as shown on exhibit 3 in other natural-gas and natural-gas pipe-line companies—Continued

Companies	Percent of voting stock held
Columbia Gas & Electric Corporation:	
Atlantic Seaboard Corporation.....	100.0
Amere Gas Utilities Co.....	100.0
Virginia Gas Distribution Corporation.....	100.0
Virginia Gas Transmission Corporation.....	100.0
Binghampton Gas Works.....	100.0
Bracken County Gas Co.....	100.0
Central Kentucky Natural Gas Co.....	99.9
Cincinnati Gas & Electric Co., The.....	100.0
Cincinnati Gas Transportation Co.....	97.8
Cumberland & Allegheny Gas Co.....	100.0
Dayton Power & Light Co., The.....	100.0
Eastern Pipe Line Co.....	100.0
Fayette County Gas Co.....	99.9
Gettysburg Gas Corporation.....	100.0
Greensboro Gas Co.....	100.0
Home Gas Co.....	100.0
Huntington Gas Co.....	100.0
Huntington Development & Gas Co.....	99.8
Indiana Gas Distributing Corporation.....	100.0
Keystone Gas Co., Inc., The.....	100.0
Manufacturers Gas Co.....	100.0
Manufacturers Light & Heat Co., The.....	99.9
Michigan Gas Transmission Corporation.....	100.0
Natural Gas Co. of West Virginia.....	100.0
Northwestern Ohio Natural Gas Co., The.....	100.0
Ohio Fuel Gas Co., The.....	100.0
Pennsylvania Fuel Supply Co.....	100.0
Point Pleasant Natural Gas Co.....	100.0
Union Light, Heat, and Power Co., The.....	95.8
United Fuel Gas Co.....	100.0
Warfield Natural Gas Co.....	100.0
Columbia Oil & Gasoline Corp.: ¹	
Panhandle Eastern Pipe Line Co. (Delaware).....	55.5
Central Distributing Co.....	100.0
Panhandle Eastern Pipe Line Co.....	100.0
Panhandle Illinois Pipe Line Co.....	100.0
Electric Bond & Share Co.: ¹	
American Power & Light Co.....	20.7
Central Arizona Light & Power Co.....	100.0
Montana Power Co.....	99.7
Glacial Production Co.....	100.0
Texas Public Utilities Corporation.....	99.9
Electric Power & Light Corporation:	
Arkansas Power & Light Co.....	47.2
Louisiana Power & Light Co.....	100.0
Mississippi Power & Light Co.....	95.4
Mississippi Power & Light Co.....	93.9
New Orleans Public Service, Inc.....	95.7
United Gas Corporation.....	51.3
Mississippi River Fuel Corporation.....	46.6
Union Producing Co.....	100.0
United Gas Pipe Line Co.....	100.0
Houston Gulf Gas Co.....	100.0
National Power & Light Co.	46.6
Memphis Natural Gas Co.....	16.3
Memphis Power & Light Co.....	99.9
Lehigh Power Securities Corporation.....	99.9
Pennsylvania Power & Light Co.....	99.9
North Branch Development Co.....	100.0
Susquehanna Gas Co.....	100.0
Niagara Hudson Power Corporation: Central New York Power Corporation	86.2
The Commonwealth & Southern Corporation:	
Alabama Power Co.....	91.4
Central Illinois Light Co.....	65.3
Consumers Power Co.....	69.5
Hinton-Belvidere Natural Gas Gathering Co.....	100.0
Georgia Power Co.....	100.0
Gulf Power Co.....	100.0
Southern Indiana Gas & Electric Co.....	82.3
American Water Works & Electric Co.:	
West Penn Electric Co., The.....	100.0
West Penn Power Co.....	100.0
Monongahela West Penn Public Service Co.....	100.0
State Line Gas Co.....	100.0

¹ Poor's Manual, utility volume, 1939 edition.

² The U. S. Department of Justice, in a brief filed Dec. 21, 1938, in the District Court of the United States for the District of Delaware, charges that the Columbia Gas & Electric Corporation and the Columbia Oil & Gasoline Corporation have not been properly separated as was intended in the decree of Jan. 29, 1936.

³ Information furnished by company, supplemented by information from Poor's Manual, utility volume, 1939 edition.

Percentage of voting stock as shown on exhibit S in other natural-gas and natural-gas pipe-line companies—Continued

Companies	Percent of voting stock held
The United Light & Power Co.:	
Cedar Rapids Gas Co.....	100.0
Fort Dodge Gas & Electric Co.....	100.0
Iowa City Light & Power Co.....	100.0
Ottumwa Gas Co.....	100.0
Peoples Light Co.....	100.0
Peoples Power Co.....	100.0
The United Light & Railways Co. (Delaware):	100.0
American Light & Traction Co.....	51.0
American Michigan Pipe Line Co. (PL).....	100.0
American Production Co.....	100.0
Michigan Cons. Gas Co.....	99.9
San Antonio Public Service Co.....	64.8
Continental Gas & Electric Corporation:	99.0
Cimarron Utilities Co.....	100.0
Guymon Gas Co.....	100.0
Iowa-Nebraska Light & Power Co.....	100.0
Panhandle Power & Light Co.....	100.0
Peoples' Gas & Electric Co.....	100.0
Northern Natural Gas Co. (PL):	35.0
Argus Natural Gas Co., Inc. (PL).....	100.0
Peoples Natural Gas Co.....	100.0
The Garden City Gas Co.....	100.0
Minneapolis Northern Natural Gas Co.....	100.0
Lone Star Gas Corporation:	
Community Natural Gas Co.....	100.0
Council Bluffs Gas Co.....	100.0
County Gas Co.....	100.0
The Dallas Gas Co.....	100.0
Guthrie Gas Service Co.....	100.0
Lone Star Gas Co.....	99.9
Lone Star Gasoline Co.....	100.0
Texas Cities Gas Co.....	100.0
Northern Natural Gas Co.....	30.0
Columbian Carbon Co.:	
Amalgamated Co., Inc., The.....	98.4
Columbian Fuel Corporation.....	100.0
Columbian Gasoline Corporation.....	100.0
Coltco Corporation.....	51.0
LaDel Oil Properties, Inc.....	99.1
Peerless Carbon Black Co., The.....	100.0
Pineville Gas Co., Inc.....	100.0
Southern Carbon Co.....	100.0
Southern Gas Line, Inc.....	100.0
Mississippi River Fuel Corporation.....	17.0
United Carbon Co.:	
Taylor-Green Gas Co.....	100.0
United Carbon Co., Inc.....	60.0
Westook Gasoline Co.....	100.0
United Producing Co., Inc.....	100.0
Mississippi River Fuel Corporation.....	13.4
Cities Service Co.:	
American Pipe Line Co.....	99.0
Arkansas Natural Gas Corporation.....	74.2
Transark Oil & Gas Co.....	50.0
Arkansas-Louisiana Gas Co.....	100.0
Cities Service Power & Light Co.	99.9
City Light & Traction Co.....	99.9
Federal Light & Traction Co.....	64.7
Albuquerque Gas & Electric Co.....	99.9
Springfield Gas & Electric Co.....	99.9
Tucson Gas, Electric Light & Power Co.....	99.9
Central Arkansas Public Service Corporation.....	100.0
Consumers Gas Co.....	100.0
Public Service Co. of Colorado:	99.9
Cheyenne Light, Fuel & Power Co.....	99.9
Colorado Interstate Gas Co.....	15.0
Colorado-Wyoming Gas Co.....	100.0
Dominion Natural Gas Co., Ltd.	99.9
Empire Gas & Fuel Co.....	99.9
Cities Service Gas Co.....	100.0
Indian Territory Illuminating Oil Co.....	72.9
Gas Service Co.....	99.9
Kansas City Gas Co.....	99.9
Manufacturers Natural Gas Co., Ltd.....	99.7
Natural Gas Pipeline Co. of America.....	26.6
Penn-York Natural Gas Corporation.....	100.0
Quadrangle Gas Co.....	26.6
Republic Light, Heat & Power Co.....	100.0

Percentage of voting stock as shown on exhibit 3 in other natural-gas and natural-gas pipe-line companies—Continued

Companies	Percent of voting stock held
Cities Service Co.—Continued.	
Southern Ontario Gas Co., Ltd.	99.9
Texanna Natural Gas Co.	26.6
Tri-City Gas Co.	49.0
Wyandotte County Gas Co.	99.5
The North American Co.:	
St. Louis County Gas Co., The	100.0
Union Electric Co. of Missouri	94.6
Union Electric Co. of Illinois	100.0
North American Light & Power Co.	73.5
Illinois Traction Co.	99.9
Cohokia Manufacturers Gas Co.	100.0
Illinois-Iowa Power Co.	⁹ 23.7
Des Moines Electric Light Co.	100.0
Iowa Power & Light Co.	100.0
Kansas Power & Light Co., The	100.0
McPherson Oil & Gas Development Co., The	100.0
Missouri Power & Light Co.	100.0
Nebraska Natural Gas Co.	100.0
Northern Natural Gas Co.	35.0
Pacific Gas & Electric Co.	17.7
The Peoples Gas Light & Coke Co.:	
Peoples Gas Subsidiary Corporation	100.0
Natural Gas Investment Co.	79.5
Chicago District Pipeline Co.	100.0
Natural Gas Pipeline Co. of America	26.6
Texoma Natural Gas Co.	26.6
The Indiana Natural Gas & Oil Co.	100.0
Indiana Public Utility Corporation	100.0
Kokomo Gas & Fuel Co.	100.0
Midland United Co.	¹⁰ 8.1
The Texas Corporation:	
The Texas Co. (California)	100.0
The Texas Co. (Delaware)	100.0
Coltexo Corporation	49.0
Seaboard Oil Co. of Delaware	32.3
Natural Gas Pipe Line Co. of America	17.6
Quadrangle Gas Co.	17.6
Texoma Natural Gas Co.	17.6
Commonwealth Gas Corporation:	
Carbons Consolidated, Inc.	76.0
Kenova Gas & Oil Co.	100.0
Memphis Natural Gas Co.	48.0
West Virginia Gas Corporation	97.8
Monickel Gas Co.	95.0
Texas Gas Utilities Co.	53.6
Standard Gas & Electric Co.:	
Louisville Gas & Electric Co. (Delaware)	94.0
Louisville Gas & Electric Co. (Kentucky)	61.4
Mountain States Power Co.	45.3
Northern States Power Co. (Delaware)	40.0
Northern States Power Co. (Minnesota)	93.6
Philadelphia Co.	97.0
Finleyville Oil & Gas Co.	100.0
Kentucky West Virginia Gas Co.	100.0
Pittsburgh & West Virginia Gas Co.	100.0
Equitable Gas Co.	100.0
San Diego Consolidated Gas & Electric Co.	60.9
Pacific Gas & Electric Co.	1.7

⁹ An additional 2.7 percent was held within the system.

¹⁰ Peoples Gas Subsidiary Corporation owns an additional 7.5 percent.

EXHIBIT 9

The quantity of natural gas produced, the quantity transported across State lines by companies controlled by the Rockefeller and Morgan and connected interests and their natural-gas trunk-line mileage and percentages of United States totals, 1934

[Compiled from information furnished the Federal Trade Commission by the companies]

	Production of natural gas in the United States		Purchases of natural gas		Trunk pipe lines		Natural gas transported across State lines	
	M cubic feet	Percent	M cubic feet	Percent of production	Miles	Percent	M cubic feet	Percent based on—
								Quantity moved across State lines
United States total.....	1,770,721,000				152,000		471,156,877	
Rockefeller interests:								
Standard Oil Co. of New Jersey.....	46,143,003		20,895,014		4,843		71,842,035	
National Fuel Gas Co.....	16,322,789		9,438,032		1,559		7,030,880	
Socony Vacuum Oil Co., Inc.....	63,170,055							
Standard Oil Co. (Indiana).....	3,219,159							
The Ohio Oil Co.....	1,547,645							
Other Rockefeller companies ¹	110,589,647		25,164,659		(²)		307,834	
Total.....	240,992,358	13.61	55,497,705	3.13	6,402	12.31	79,181,649	16.81
Connected companies:								
Southwestern Development Co.....	31,619,003		5,115,014				25,924,846	
Cities Service Co.....	79,645,280		41,836,578		845		96,102,902	
Natural Gas Pipeline Co. of America.....	33,093,983		18,244,769		6,059		31,035,409	
Colorado Interstate Gas Co.....			26,502,801		1,050			
United Carbon Co.....	22,128,292		49,972,956		254			
Peoples Gas Light & Coke Co.....			34,045,749					
Total.....	166,486,558	9.40	175,717,867	9.92	8,208	15.78	156,063,157	33.12
Total.....								8.81

¹ Approximate mileage.

² Consolidated totals for the Atlantic Refining Co., Consolidated Oil Corporation, South Penn Oil Co., and Standard Oil Co. of California furnished by the U. S. Department of the Interior, Bureau of Mines, which cannot reveal data relating to the operations of individual companies.

³ Information not available.

EXHIBIT 10

NATURAL-GAS PIPE-LINE COMPANIES

Comparative prices paid and received during 1934, unless otherwise stated, showing wide spreads and inconsistent relationships to cost and distances transported, and variations dependent upon classes of customers to whom the gas is to be resold

Companies	Cents per M cubic feet		Source—References		
	Paid	Received	Exhibit	Volume	Page
Panhandle Eastern Pipe Line Co. (averages).....	*4.82	19.93	6575	84	1221
Sales to—					
Panhandle Illinois Pipe Line Co. (subsidiary) at Missouri-Illinois State line.....		*22.32	6575	84	1227
Indiana Gas Transmission Corporation at Illinois-Indiana State line.....		*18.00	6575	84	1223
Central States Gas Utilities Co. (subsidiary) in Kansas and Missouri, main line.....		35.20	6575	84	1227
Central States Gas Utilities Co., local area.....		32.01	6575	84	1227
Kansas Gas & Fuel Co., local area (at Kincaid and Mildred, Kans.).....		32.48	6575	84	1223
Kansas Gas & Fuel Co., main line (at Kincaid and Mildred, Kans.).....		32.70	6575	84	1223
Interstate Pipe Line Co., main line (at Harrisonville, Mo.).....		*40.00	6575	84	1223
Missouri Power & Light Co. (at various cities in Missouri).....		20.39	6575	84	1223
Missouri Utilities Co., main line (at Columbia, Mo.).....		32.00	6575	84	1223
Panhandle Power & Light Co., main line (at Gruver, Tex.).....		32.53	6575	84	1223
Peoples Ice & Fuel Co., main line (at Mullenville, Kans.).....		7.90	6575	84	1223
American Pipe Line Co., local area (at Kansas City, Mo.-Kans.).....		*18.85	6575	84	1223
Natural Gas Pipeline Co. of America—Fiscal year ended June 30, 1933 (averages).....	*9.36	22.65	5604	62	420-21
Sales to—					
Iowa-Nebraska Light & Power Co.....		18.68	5604	62	420
Iowa Power & Light Co.....		28.52	5604	62	420
United Gas Service Co.....		*40.00	5604	62	420
Chicago District Pipeline Co.....		*22.84	5604	62	420
Dewey Portland Cement Co.....		*10.02	5604	62	420
Mississippi River Fuel Co. (averages).....	*5.99	17.39	6407	82	812, 779
Sales to—					
Arkansas Power & Light Co., main line, for resale to—					
Domestic consumers.....		*37.69	6407	82	789
Commercial customers.....		*21.00	6407	82	789
Industrial customers.....		*19.23	6407	82	789
Customers taking surplus gas.....		14.00	6407	82	789
Average.....		28.18	6407	82	789
Arkansas Natural Gas Co., main line, for resale to—					
Domestic customers.....		*40.00	6407	82	793
Commercial customers.....		29.53	6407	82	793
Industrial customers.....		*22.93	6407	82	793
Customers taking surplus gas.....		16.07	6407	82	793
Average.....		33.12	6407	82	793

*Important.

EXHIBIT 11

Summary of operating data pertaining to 11 natural-gas pipe-line systems controlled by Columbia Gas & Electric Corporation, Standard Oil Co. (New Jersey), Cities Service Co., and Electric Bond & Share Co.

[These data cover 1934 operations, unless otherwise stated]

Companies and groups	Total average capital employed in gas business	M cubic feet sold	Average price received for gas sold per M cubic foot	Average price paid for gas purchased		Operating expenses		Net operating profit			1934 load factor ²	Source reference	
				Per M cubic foot	Percent of sales	Per M cubic foot	Percent of sales	Per M cubic foot	Percent of sales	Percent of return on capital employed in gas business ¹		Volume	Exhibit
Controlled by Columbia and Standard: Transmission subsidiaries of Atlantic Seaboard Corporation (Kentucky, Virginia, and Maryland) ¹ ; and transportation corporations (consolidated) ²			Cents										
	\$12,219,273	3,303,642	38.89	20.12	51.75	15.38	39.53	3.39	8.72	0.92	Percent 20-25	83	6535
	3,206,248	11,582,703	15.23	11.79	77.44	1.81	11.88	1.63	10.68	5.88		84	6610
	3,225,477	1,637,122	23.25	18.09	77.80	6.26	26.97	(-1.10)	(-4.77)	(-3.13)		84	6610
	2,593,061	1,230,531	47.53	20.40	55.53	10.32	21.72	10.81	22.75	5.17	Percent 20-25	84	6594-A
Connecting gas company	104,800	6,148,892	42.25	(¹)	(¹)	1.22	54.03	1.03	45.97	38.58		84	6608
Total of above	18,409,819	22,911,890	17.13	10.79	63.02	4.20	24.46	2.14	12.52	2.67			
Controlled by Standard and others: Mississippi River Fuel Corporation ¹ ; Natural Gas Pipeline of America (year ending June 30, 1935) ² ; Colorado Interstate Gas Co.													
	18,846,864	21,127,746	17.39	6.40	36.81	7.68	44.14	3.31	19.05	3.72	55-60	82	6407
	41,818,478	24,153,365	22.65	9.46	41.78	3.91	17.24	9.28	40.98	5.36		62	5604
	15,396,384	20,617,065	14.30	7.65	53.49	4.08	28.53	2.57	17.98	4.30	65-70	82	6393
Total of above	76,261,726	71,898,716	18.02	7.89	43.81	5.08	28.19	5.05	28.00	4.76			
Controlled by Columbia: Panhandle Eastern Pipeline Co. and Panhandle Illinois Pipeline Co. (consolidated) ¹													
	40,591,509	12,711,343	21.52	4.68	21.76	11.50	53.43	5.34	24.81	1.67	25-30	84	6575
Total of above 9 companies	135,263,054	107,521,949	18.24	8.13	44.58	5.65	30.96	4.46	24.46	3.55			

Controlled by Cities Service Co. and Electric Bond & Share Co.; Gas Co. (1930)-----	2,162,643	8,750,044	7.64	2.97	38.96	3.15	41.23	1.52	19.91	6.15	55	5351
Reserve Natural Gas Co.-----	4,722,165	14,735,736	12.69	8.98	70.75	1.80	14.19	1.91	13.06	5.96	83	6525
Southern Gas & Fuel Co.-----												
Total of above 11 companies-----	142,147,862	131,007,729	16.91	7.88	46.62	5.05	29.85	3.98	23.53	3.67		

NOTE: [Indicates loss (-)].

¹ The incomes here referred to were derived by the respective companies from gas operations before any provision for Federal income taxes.

² Load factors as roughly estimated by Commission's Engineer (J. C. D.) on basis of limited data in reports above referred to.

³ Load factor low, as explained on margin hereof.

⁴ Revenue from transmission only. No gas purchased or sold.

⁵ Includes 3.43 cents paid for gas and 5.55 cents paid to Interstate Natural Gas Co., Inc., for transporting the purchased gas from Fowler to Scotland, La.

EXHIBIT 12

For Publication
Immediate Release

FEDERAL POWER COMMISSION
Release No. 723 (G-69)

COLORADO-WYOMING GAS CO. ASKS EXTENSION OF TIME IN WHICH TO FILE ITS
ANSWER TO CHARGES MADE BY WYOMING PUBLIC SERVICE COMMISSION

WASHINGTON, D. C., *February 15, 1939.*

The Federal Power Commission announced today its receipt of a petition by the Colorado-Wyoming Gas Co. asking an extension of time to April 20, 1939, in which to file its answer to a petition by the public service commission of the State of Wyoming requesting the Federal Power Commission to establish a just and reasonable rate for natural gas sold by the Colorado-Wyoming company to the Cheyenne Light, Fuel & Power Co.

The Colorado-Wyoming company's answer is due February 21, under the commission's "Provisional Rules of Practice and Regulations Under the Natural Gas Act," and the petition seeking an extension of time states that, in order to fully answer the allegations made by the Wyoming Commission, the Colorado-Wyoming company must cause a valuation to be made of all its physical property. Engineers employed by the company have advised that the valuation cannot be completed in less than 6 weeks after February 21, the petition says.

Properties of the company are stated to consist of 194.99 miles of high pressure gas pipe lines, extending from a point north of Littleton, Arapahoe County, Colo., to a point immediately adjacent to the city limits of Cheyenne, Wyo.; various and sundry branch lines extending from the main trunk line; and compressor and measuring stations.

The Wyoming Commission's petition follows an investigation made by it in 1934 in an endeavor to establish a schedule of rates to be applied by the Cheyenne Light, Fuel & Power Co. in its distribution of natural gas to domestic and commercial consumers in Cheyenne. This investigation developed the information that the gas produced by the Canadian River Gas Co., in Texas, was sold to the Colorado Interstate Gas Co. which, after transporting the gas 340 miles to Littleton, Colo., sold it to the Colorado-Wyoming company for 17 cents per thousand cubic feet. The Colorado-Wyoming company then transported the gas to Cheyenne, a pipe line distance of 115 miles, and sold it to the Cheyenne Light, Fuel & Power Co. at a gate rate of 42 cents per thousand cubic feet.

"It appeared that if 17 cents per thousand cubic feet was a fair and reasonable rate for the sale of natural gas after transporting the same 340 miles, the 42-cent rate for the sale at the Cheyenne city gate, a point 115 miles more distant was unjust and unreasonable," the Wyoming Commission stated in its petition, adding "However, due to the fact that the Cheyenne gate rate was a controlling factor in determining reasonable retail charges, the investigation was frustrated because the transportation and wholesale distribution involved was an interstate operation." It is understood that there has been a slight revision in these rates; the petition stated, but that substantially the same situation exists at present.

This State investigation concerning retail gas rates would be greatly facilitated, the Wyoming Commission says, by the Federal Power Commission fixing a reasonable rate for natural gas sold at the Cheyenne city gate as it appears that there is no "at arm's length" dealing between any of the aforementioned corporations, and it also appears, the Wyoming agency's petition adds, that "these corporations have been able to dictate, when they so desire, unjust, unreasonable, and discriminatory rates that have ultimately developed a burden upon the Cheyenne consumers."

EXHIBIT 13

THE NATURAL GAS MONOPOLY

For Information and Guidance of United States Senate and House of Representatives, State legislatures and municipal councils, United States conference of mayors, State leagues of municipalities, public-utility consumers—Published by The Cities Alliance, Municipal Co-operation for the Reduction of Gas Rates, Water Board Building, Detroit, Mich.]

A RESOLUTION BY NATURAL GAS COMMITTEE, UNITED STATES CONFERENCE OF MAYORS

DECEMBER 17, 1936.

RESOLVED, That the Natural Gas Committee of the United States Conference of Mayors respectfully urges the City of Detroit to prepare for wide distribution a comprehensive report on its recent campaign to obtain an adequate supply of natural gas at reasonable prices.

By W. C. REED,
Chairman, Public Utilities Committee, City Council, Cleveland, Ohio.

A REPORT BY THE CITIES ALLIANCE ON BEHALF OF DETROIT AND OTHER CITIES

JANUARY 15, 1937.

THE NATURAL GAS COMMITTEE,
United States Conference of Mayors.

GENTLEMEN: Responding to your recent resolution, the Gas Committee of Common Council of the City of Detroit has requested The Cities Alliance to prepare this booklet, available to public officials without charge. We would remind you that it deals only in part with conditions in the natural gas industry in the Middle West and refer you to Federal Trade Commission volumes 82, 83, and 84-A, -B, and -C for a detailed picture of the situation generally in the Nation.

Respectfully,

THE CITIES ALLIANCE,
Water Board Building, Detroit, Mich.

"A KIND OF PRIVATE GOVERNMENT"

Behind the growing recovery of today is a story of deliberate Government acceptance of responsibility to save business—to save the American system of private enterprise and economic democracy—a record unequalled by any government in history.

What had the previous administration in Washington done in four years? Nothing. Why? For a very fundamental reason. That Administration was not industrially-minded—nor agriculturally-minded—nor business-minded. It was high-finance-minded—manned and controlled by a handful of men who in turn controlled and by one financial device or another took their toll from the greater part of all other business and industry.

There was no power under Heaven that could protect the people against that sort of thing except a people's government at Washington. All that this Administration has done, all that it proposes to do—and this it does propose to do—is to *use every power and authority of the Federal Government to protect the commerce of America from the selfish forces which ruined it.*

Above all, we have fought to break the deadly grip which monopoly has in the past been able to fasten on the business of the nation.

Because we cherished our system of private property and free enterprise and were determined to preserve it as the foundation of our traditional American system, we recalled the warning of Thomas Jefferson that "widespread poverty and concentrated wealth cannot long endure side by side in a democracy."

Our job was to preserve the American ideal of economic as well as political democracy against the abuse of concentration of economic power that had been insidiously growing up among us in the last 150 years, particularly during the 12 years of preceding administrations. *Free economic enterprise was being weeded out at an alarming pace.*

During those years of false prosperity and during the more recent years of exhausting depression, one business after another, one small corporation after another, their resources depleted, *had failed or had fallen into the lap of a bigger competitor.*

A dangerous thing was happening. Half of the industrial corporate wealth of the country had come under the control of less than 200 huge corporations. That is not all. These huge corporations in some cases did not even try to compete with each other. They tied themselves together by interlocking directors, interlocking bankers, interlocking lawyers.

This concentration of wealth and power has been built upon other people's money, other people's business, other people's labor. Under this concentration, *independent business was allowed to exist only by sufferance.* It has been a menace to the social system as well as the economic system which we call American democracy.

There is no excuse for it in the cold terms of industrial efficiency.

There is no excuse for it from the point of view of the average investor.

There is no excuse for it from the point of view of the independent businessman. I believe, I have always believed, and I will always believe in private enterprise as the backbone of the economic well-being in America.

But I know, and you know, and every independent businessman who has had to struggle against the competition of monopolies knows, that this concentration of economic power in all-embracing corporations does not represent private enterprise as we Americans cherish it and propose to foster it. On the contrary, it represents private enterprise become a *kind of private government which is a power unto itself*—a regimentation of other people's money and other people's lives.—Excerpts from a campaign address by President Franklin D. Roosevelt at Chicago, October 14, 1936.

OUTLINE

Part I. Introduction:

Resolution by Natural Gas Committee, United States Conference of Mayors.

Response by The Cities Alliance on behalf of Detroit and Other Cities.

"A Kind of Private Government."

Table of Contents.

"Detroit Gets Natural Gas!"—A Report to the U. S. Conference of Mayors.

U. S. Conference of Mayors Resolution creating Natural Gas Committee.

Part II. Monopoly on parade:

Monopoly's Markets Invaded—Doherty Threatens War.

Doherty Again Protests Aid to Rival Pipe Line.

Woman Relates Cities Service Espionage While Working for Competitor.

Holding Corporations Continue Complaints Against "Competitive Situations"

Panhandle Eastern Refuses to Sell Cheap Gas in "Somebody Else's Territory."

Columbia's Gossler Resents "Aggression" in Race for Indianapolis Market.

Destructive Intent Charged to Columbia by Panhandle Eastern Partner.

Columbia Frustrated Independent Project to Supply Eastern Gas to Detroit.

Part III. The Cities in revolt:

Detroit Heads Revolt Against Gas Monopoly, Launches Probe for Users.

Utilities' Intrigue to Monopolize Gas Sales Bared by Detroit Investigation.

Cities Seek Help of Congress to Restrain Natural Gas Monopolists:

The Situation at Columbus, O.—by Mayor Henry W. Worley.

The Situation at Detroit, Mich.—by Council President John W. Smith.

The Gas Producers' Problems—by Panhandle Conservation Association.

The Extent of Eastern Gas Reserves—by H. R. Allensworth, Rate Engineer.

The Situation at St. Paul, Minn.—by Commissioner H. C. Wenzel.

The Situation at Indianapolis, Ind.—by Mayor John W. Kern.

The Situation at Milwaukee, Wis.—by Supt. H. A. Bohmann.

The Situation at Hamtramck, Mich.—by Mayor Joseph Lewandowski.

The Situation at Toledo, Ohio—by Mayor Solon T. Klotz.

The Pipe Line Monopoly—by F. P. Parish, president, MKPL Co.

The Situation at St. Louis, Mo.—by City Counselor Charles M. Hay.

Cities Represented at Organization Meeting of THE CITIES ALLIANCE.

Resolutions Memorializing Congress and Constituting THE ALLIANCE.

Indiana Legislature Supports Alliance Plea for Probe by U. S. Senate.

Couzens Requests Evidence of Violations, Seeks Loopholes in Law.

Chancellor Blasts Monopoly's Hope to Absorb Rival Natural Gas Company.

Government Strikes at Commerce Restraints in Natural Gas Industry.

Columbia Surrenders Control over Panhandle Eastern, Avoids Federal Trial.

Part IV. Supplement:

THE CITIES ALLIANCE—Purpose, Achievements, Program.

"The Detroit Plan" for Profit-Sharing Gas Rate Regulation.

DETROIT GETS NATURAL GAS!

A REPORT ON UNLAWFUL MONOPOLY IN THE NATURAL GAS INDUSTRY, DELIVERED BY JOHN W. SMITH, PRESIDENT, COMMON COUNCIL, CITY OF DETROIT, CHAIRMAN, THE CITIES ALLIANCE, BEFORE THE UNITED STATES CONFERENCE OF MAYORS, WASHINGTON, D. C., NOV. 18, 1936

Mr. Chairman and Members of the Conference:

When Mr. Betters asked me to speak on the subject of Natural Gas, he added this footnote to his letter: "You got it—and other cities want to know how."

You are aware that, for some years, the city of Detroit searched for an adequate, dependable natural gas supply for its homes and industries. With all major supplies in neighboring states monopolized by Columbia Gas & Electric Corporation and Standard Oil Company (New Jersey), it could obtain nothing better than an offer of a limited delivery for enriching purposes, at such an exorbitant price that its use meant no advantage over the manufactured gas which the City already had at a comparatively low rate.

Independent sources at times were on the horizon but soon were blotted out in one way or another by the gas barons, who were determined to prevent encroachment on the territory allocated to them by "divine right" of the holding corporations. Development of Michigan fields had not uncovered reserves sufficient for Detroit, while independent Southwestern producers interested in building another major pipe line to Detroit were unable to finance such a project in opposition to Wall Street.

All of the major pipe lines emanating from the southwest are owned by powerful utility holding corporations so ruthless in their operations that they refuse to buy gas from independent producers and prefer, instead, to drain *independent* gas lands without paying the slightest compensation. The result was inevitable. In sheer desperation, the independents protected themselves by selling their gas to stripping plants, which extracted gasoline and then permitted 98% of the heat value of the gas to blow into the air. This waste exceeded *one billion cubic feet per day*—sufficient gas for our entire nation—and here again the pipe line monopoly was indirectly responsible.

But the day came at last when the municipalities of the Midwest called these despoilers before the bar of public opinion, and charged them not only with the looting of a national treasure house but further indicted them for flagrant and vicious transgression of the anti-trust laws.

In a thunderous reproach, which flared in newspapers across the nation, U. S. Senator Gerald P. Nye on December 4, 1934, asserted that:

"Whole Populations of Cities and States have been 'Sold Down the River' in the Secret Bargainings Among the Natural Gas Monopolists."

He pointed to Detroit as a chief victim of the conspiracy and named other cities and states. He identified the conspirators and recited their crimes and predicted that an examination of the situation would result in *a reduction of many millions of dollars* in the nation's gas bills.

Midwest officials were particularly stirred. Among them was Daniel W. Hoan, Milwaukee's mayor and then president of this conference. Mayor Hoan inquired into the charges during a Washington visit, and on his return directed a Citizens' Committee on Public Utilities to investigate them more fully. He wished to determine what action Milwaukee should take.

Impelled by broad vision, the Committee of Milwaukee Citizens suggested that all of the affected cities should organize themselves into an offensive alliance. After conferring with Mr. Betters, Mayor Hoan wired Mayor Frank Couzens, requesting Detroit to lead the movement. On January 28, 1935, municipal officials from cities of eight midwest states met at Columbus, Ohio. From their exchange of experiences with the natural gas companies, the delegates were convinced that the Nation is grievously suffering from a lack of competition among pipe line companies wholesaling this fuel; that state regulation is a futile process; that the litigation of gas rates is not only grossly expensive and a tremendous burden finally thrown upon the consumer, but that, due to the lapse of time consumed in their final determination, economic conditions are so changed that the whole vicious circle must be started anew.

We found that but a relatively few companies controlled all of the available means of gas transportation and that, most curiously, the price demanded bore *no relation* to the original cost of the gas plus a fair return on the investment. We found that the gas monopolists, notably Columbia, hoodwinked the public with

claims of *inadequate* gas supplies in order to get the cities within their distribution areas to *bid against each other* for the supply said to be available. And this was done by Columbia when it had a tremendous number of *capped wells*, when it controlled a pipe line from the Southwest packed with enough unsold gas to supply an Empire, when it had only recently built at great expense a new pipe line to the Atlantic Seaboard, a pipe line which today is used but little.

To these problems the delegates could find but one solution—a union of the municipalities interested in obtaining cheaper rates through the introduction of low cost natural gas. Why should not the Cities take a leaf from Monopoly's book and unite their forces to break Monopoly's stranglehold, just as the gas companies are leagued in restraining competition? Through such an alliance the cities could exchange findings, and embark together upon a campaign for honest gas rates and improved service. We felt that, by a sheer weight of our numbers, such a union of cities might stir the national administration and the Department of Justice to a prosecution of what seemed to be flagrant and contemptuous violations of the Federal anti-trust acts.

So, at Columbus, the municipalities banded their strength into THE CITIES ALLIANCE, memorialized the United States Senate for an investigation, and set forth on a program of publicizing Monopoly's crimes.

Municipal conferences frequently are content with strongly-worded resolutions. But The Cities Alliance kept its eye on the target. Even before adjournment a request came to us for essential facts sought by an investigating committee of the Indiana Legislature. We charged that the *freedom* enjoyed by the Pipe Line Monopoly in *Indiana* was *preventing* the transport of cheap Texas gas to *Ohio* and *Michigan* cities. Spurred by The Cities Alliance, the Hoosier Legislators likewise petitioned the U. S. Senate for relief. In their forceful request, they pointed out that a single state is *powerless* to check an abuse national in character.

We did not stop there. We needed facts on which prosecution could be based. And so similar investigations, by States and by Cities were encouraged. The St. Louis Board of Aldermen co-operated splendidly, and sent a committee to Washington to spread their protests before the federal authorities. The Missouri Public Service Commission quickly girded itself for battle, expanding the St. Louis inquiry into a state-wide investigation. The City of Fulton sought natural gas, only to be refused by a nearby pipe line, and these and other Missouri findings were placed before the Federal Trade Commission and the Department of Justice.

In Illinois the Commerce Commission sought to compel another pipe line company to sell gas to the community of Hinsdale. In Wisconsin the cities sought authority to band themselves into "Utility Districts" and bring in their own natural gas supply; in Ohio and in Michigan the Legislatures investigated charges that Monopoly was deliberately thwarting the development of local gas reserves, in order to prevent competition by independent interests. Similarly, Cincinnati, Akron, Cleveland, Toledo, St. Paul and other cities agitated some particular phase of this general problem, and the facts were placed before midwest Senators.

Nor was Detroit inactive. We asked our local gas company to explain its failure to bring natural gas to Detroit. *Again, a reluctant but accusing finger was pointed at the Pipe Line Barons.* The receivership proceedings involving Missouri-Kansas Pipe Line Company, which had attracted Senator Nye's interest, caught our eye, too. It involved an attempt by major interests to eliminate an independent competitor. We forthwith asked the president of Missouri-Kansas, or "MoKan," as it is called, to come to Detroit and tell our Common Council why he had been unable to extend MoKan's pipe line to Detroit.

Do you see how the banners of revolt were rising throughout the midwest? With the essential facts in hand, I came here to Washington to plead our cause.

Now just what were the specific findings, from Detroit's standpoint?

We learned that, early in 1929, the powerful Columbia Gas & Electric Corporation had fraudulently represented to its Ohio patrons that its gas reserves were dwindling. Toledo consumers, for example, were asked to accept an inferior mixture of manufactured and natural gas at increased rates. Paid advertisements stated—and I quote: "the supply is not sufficient to meet the growing demand—there is just not enough gas available for Toledo."

We learned that, shortly after Columbia pleaded gas shortage to Ohio patrons, it was promoting construction of a great pipe line to the Atlantic Seaboard, toward Washington, Baltimore, Philadelphia, and other large cities. Would Columbia spend millions of dollars to supply new customers, if its gas reserves were truly inadequate properly to service *old* customers in Ohio?

We learned that, late in 1930, Columbia's management was directed to extend its Ohio system northward from Toledo to Detroit. The action was taken by the

executive committee of Columbia's board on the day *after* another company—a new, independent enterprise—had asked our Common Council for a permit to sell natural gas to local industries. The supply was to come from eastern Kentucky through a pipe line that would cut straight across the Columbia network. Now, if Columbia in 1929 had *insufficient* gas for *Toledo homes*, how could it, a year later plan to sell natural gas from the Toledo area to the *great industries of Detroit*?

We learned further that Columbia, instead of building a line to our City, obtained financial control of its potential rival, and later "permitted" the producing subsidiaries to go into receivership. Much of the right-of-way had already been taken for the line to Detroit and valuable new gas acreage was under Columbia's control, but Columbia still failed to pipe natural gas to our city, the world's greatest market.

I searched and found that Columbia was intent mainly on suppressing competition and threats to its Ohio domination. This was evidenced by a letter I received from a former financial sponsor of the independent company. He credited a Columbia official with this bald assertion during an interview: "*If anyone thinks Columbia is going to allow a ditch to be dug across the State of Ohio, he is crazy, that's all.*"

These revelations convinced Detroit that natural gas from *Eastern* fields would not reach us at an honest price, so we looked to the great *Southwestern* fields. Now, please note how our subsequent discoveries fit into the pattern of monopolistic intrigue I have already described.

I quote from a telegram which is part of the evidence collected by the Federal Trade Commission. It is supported by sworn testimony wrung from the unwilling lips of the monopolists themselves. Understand, all these revelations are now a *part of the public record*. On May 25, 1930, the president of the far-flung Cities Service Co. sent this message to the president of the North American Company, another powerful utility holding corporation (I quote):

"A man by the name of Parish is threatening to invade our natural gas territory in Kansas and Missouri and it is common rumor that he has only been able to do this by the help and encouragement given to him by the Studebaker interests. I feel it my duty to advise you that if Parish interferes with us in any way we will feel free to invade any territory of the Studebaker people on any branch of the public utility business or any of their principal stockholders.

(Signed) HENRY L. DOHERTY."

On May 26, the next day, the North American Company informed the Insull interests, a "principal stockholder," of the Doherty threat, and enclosed this memorandum, which likewise has been published by the Federal Trade Commission. I quote (in part):

"More than a year ago the Missouri-Kansas Pipe Line Co. took up with us the matter of serving our central Missouri cities, a territory which the Cities Service Co. had refused to sell us gas for, and we made studies of the central Missouri situation, and they did.

"Several months ago they wanted to open up active negotiations with us, which we entered into. The proposition they made us is much better than any the Cities Service Co. has ever made us and better than we ourselves would make and, therefore, in view of these and other absolutely ample considerations, we contracted to buy our gas supply for central Missouri and central Illinois from this company. We are satisfied that any other company sitting where we are would have done exactly the same thing and thereby have made a good trade for the best interests of all concerned.

"While all of this has been going on, the Cities Service Co. have been embarrassing us in cities in Nebraska where we have franchises, and have had for more than a year, by asking for overriding franchises. They did not announce any intent of serving central Missouri until after we concluded our negotiations with the Missouri-Kansas Co."

Here, in the words of one monopolist to another, is established the fact that the independent natural gas pipe line then under construction by Parish was able to bring Texas natural gas to Illinois and Missouri cities at a price *better* than the North American interests would sell to their *own* subsidiaries!

In September, 1930, *before F. D. Roosevelt*, Mr. Doherty sent a few more telegrams. He is still protesting against arrangements helpful to the independent program. A contract had been made whereby the Columbia interests became partners with Mokon in the Texas gas line, known as the Panhandle Eastern, and a \$20,000,000 first mortgage bond issue had been underwritten by the National City Company to complete the construction. On the 23rd Mr. Doherty

informed the National City Company that construction of the Parish pipe line would—and here I quote portions of the Federal Trade Commission evidence—

“———seriously affect the credit of several important companies and perhaps the entire public utility business * * * your people knew that this project was an assault on other utilities and plans and I am at a loss to know why they joined partnership in a project which, according to established rules of public utility ethics, is classed as a raid * * * Columbia went into this enterprise *in spite of a previous understanding had with me* * * * I am compelled to emphatically protest against what Parish proposed to do and those supporting Parish are making it possible for him to carry out his plans and to do so WILL INEVITABLY SMASH RATES TO COMPLETE DEMORALIZATION throughout the entire district reached by any of the concerns involved and * * * I am prepared to meet this assault if necessary with *counter-assaults*, and mean to lay my views of this entire matter before each of the representatives of all of the public utility companies and ask them for their support.

“HENRY L. DOHERTY.”

Now what was the relation of these Doherty telegrams to Detroit's problem? Essentially this: *that unlawful Monopoly stood between Detroit and cheap Texas gas, just as it had barred us from receiving eastern Kentucky gas.* As these disclosures burst upon us like a shower of light, we wondered why the great utility holding corporations, backed by billions of dollars, should be so agitated by a lone independent without financial backing, other than the public's desire to benefit.

How could such a venture hope to prevail against a corporate combination controlling the gas markets as well as the means of finance?

Is it not clearly evident that a dishonest structure of wholesale prices for natural gas had been erected by the Pipe Line Monopoly, and that now its House of Cards trembled before the breath of competition?

As I interpret the evidence, Mogan had originally planned to extend its Panhandle Eastern line to Detroit and to various Ohio cities, but had been frustrated first by the Cities Service-Standard Oil combine, and later by Columbia. Mogan had admitted Columbia into partnership because a “bear raid” on its common stock had ruined its financing.

We learned that this short selling attack had followed an alleged threat to Parish that, unless he sold his company's southwestern reserves to Standard Oil, pipe lines and market contracts to Cities Service, all at cost, and invested the proceeds in another pipe line dominated by the monopolists, the Mogan stock would be raided, the investors ruined, and he, Parish, would be driven from the industry in disgrace.

From the testimony we learned that, immediately after acquiring the partnership, Columbia had purchased the entire \$20,000,000 bond issue which National City had bought for distribution to the public. Here, in this Mogan instance, our City recognized the same devious strategy by which Columbia had *suppressed that other independent enterprise* and prevented it from bringing *eastern gas* across Ohio to Detroit. Acquisition of the Panhandle Eastern bonds placed Columbia in position to foreclose on the property in the event its revenues were insufficient to meet interest obligations. In fact, Panhandle Eastern's restricted sale of gas by 1934 had already brought about such a default.

We learned for example, that Columbia had placed its own men into the management of Panhandle Eastern, following which Panhandle Eastern refused to sell gas for consumption in certain Kansas and Missouri cities. By the utility “code” those markets “*belonged*” either to Cities Service or to Standard Oil. Panhandle Eastern even refused to sell gas to its half-owner, Mogan, for resale in Indianapolis. Furthermore, Columbia failed to buy Panhandle Eastern gas for its own account in Ohio markets, despite its assertions of inadequate supply for Ohio patrons. It had also informed Parish that Mogan could not participate in the sale of natural gas at Detroit, which project would become the *exclusive* venture of Columbia, Cities Service, and Standard Oil, although the gas would be drawn from the Panhandle Eastern system.

Do you realize how the Midwest has been “parcelled out” among the dominant utility interests? In St. Louis, for example, Standard Oil advanced, as a reason for mixed gas service, the same specious argument advanced by Columbia in Ohio—“INADEQUATE SUPPLY.” At the same time, its sales contract *prohibited* the St. Louis gas company from buying additional natural gas from any other pipe line. This was a most vicious agreement and in direct violation of the anti-trust laws. It explains why St. Louis consumers, unlike Detroit, today are compelled to accept an inferior mixed gas, instead of straight natural gas service.

In the face of these findings, could Detroit believe otherwise than that major natural gas interests were in concert to restrain trade? To keep low cost Texas gas away from Detroit? That their actions constituted *one gigantic conspiracy against the American people*, and were not merely a collection of localized conspiracies? Do you wonder that, in an emergency so alarming, our City debated the drastic and unusual measure of intervening in a receivership settlement hearing of the Missouri-Kansas Pipe Line Company at Wilmington, Delaware?

The records revealed that Columbia had proposed to Missouri-Kansas receivers that Cities Service and Standard Oil, as well as themselves, should be freed from anti-trust damage suits by Mokan, in exchange for a small cash payment which would be inadequate even to meet all creditors' claims. Failing in this, Columbia had sought a release for itself. Doesn't this indicate an undeniable conspiracy?

We also learned that a Standard Oil subsidiary had directed its St. Louis attorney to represent certain Mokan creditors at that hearing in support of the Columbia proposal. Sworn testimony also was given under oath by a Columbia official that its eastern gas reserves were far *more* than adequate to service Ohio cities; that Columbia had been compelled, in fact, to *shut in* many of its eastern wells. For that reason, it had been unable to take from the Panhandle Eastern system the natural gas quantities it had agreed to take.

Now, gentlemen, consider this:

One month after Columbia had introduced this sworn testimony in a Delaware court it was again directing attention to alleged inadequate supplies. For example, one of its advertisements at Toledo posed this question: "When There's Not Enough For All, Which One Gets It?" The implication was that other markets, *perhaps* Detroit, would gladly pay a *higher* price for Columbia's available natural gas.

I have related merely a few of our City's findings. What was our next step? We had located an available supply. For four years there had been available *50 million cubic feet per day* at the western Indiana border, and the Panhandle Eastern was facing bankruptcy for lack of revenue. It is apparent that Columbia would have benefited by such a misfortune to the Parish line. The gas company at Detroit had told our Common Council that its efforts to contract for that supply at a fair price had been futile; that Columbia demanded approximately 50 cents per thousand cubic feet. I should mention here that an Indianapolis reporter had been told by Panhandle Eastern, as early as 1931, that the Indianapolis price would be determined by the price of natural gas at Chicago, which is supplied by the Standard Oil-Cities Service pipe line.

You can see that Detroit was vitally concerned by the experiences of other cities at the hands of Monopoly. Municipal defeats elsewhere merely strengthened the conspiracy against Detroit. *No city in America can have a detached viewpoint on this situation*, for the field of battle is constantly shifting. Detroit was determined to challenge the Pipe Line Barons by presenting these findings to the Department of Justice and demanding a contract for a gas supply as the start of a municipal utility service. No other arm of the law could effectively deal with this situation. We employed an engineer to determine our natural gas needs, and the price at which Panhandle Eastern gas could be made available at our city gate, with a reasonable profit to that company.

Would Columbia have the temerity to refuse to sell Detroit gas? This was the issue. Armed with specific instances of Columbia's anti-trust law violations, we now demanded investigation and prosecution. By that time the Department had filed an anti-trust action against Columbia, so Columbia came prepared to negotiate the contract.

Now, Detroit's gas company wanted to buy this supply and distribute it. Until the City threw its strength into the battle, the gas company had sought in vain for four years to obtain such a contract. When the gas company agreed to distribute it under the "Detroit Plan," the City retired as a principal. The pipe line was completed to Detroit on July 7, this year. The changeover to a complete natural gas service was completed this November 7th. The plan whereby our domestic consumers share in utility profits from gas distribution, and the rates are automatically regulated, will be described fully in a booklet now being prepared. (See Part IV.)

We have pointed out how The Cities Alliance made available to Detroit *a benefit we could not obtain solely by our own efforts*. But is the battle completely won? Is our problem ended? And how can other cities obtain such a supply?

From the present pipe line Detroit can obtain 90 million cubic feet per day, no more. Our ultimate needs, however, approximate 200,000,000 cubic feet per day, if the full benefits of this service are to be realized by our industrial and domestic consumers.

Our city is determined to bring in *more* gas. And in the building of a second pipe line to our vast market lies the answer to another national problem—the *conservation of natural gas* in the Michigan, Oklahoma, Kansas, and Texas Panhandle fields. Texas has enacted a law which, temporarily at least, halts this waste, but the great markets of the middle west *must be opened to the independent producers and landowners* before the problem is fairly solved. By the united action of the Cities, this can be achieved. Texas has done her part, now let us do ours by removing Monopoly's barriers.

I am confident that other great industrial cities will want to join Detroit in this new program. What steps should they take? I suggest first that Cleveland, Toledo, Cincinnati, Milwaukee, and the Indiana and Wisconsin cities wanting a low cost supply should first inform their local gas companies that the *gas will be made available*, and that if the present gas companies won't distribute it, then *the Cities themselves will undertake the job*. Cleveland, for example, may rightly inquire why it should pay 38.5 cents per 1,000 cubic feet for West Virginia gas brought to the Ohio River, while Detroit pays only 33½ cents for Texas gas brought 1,200 miles across half a dozen States.

These co-operating cities must next join with the independent producers who have been denied a market, to see that conservation is promoted, and to move forward together in obtaining or constructing pipe line facilities, *under full protection of the federal anti-trust laws*.

In addition to urging federal regulation of interstate gas lines, the cities should demand a more adequate application of the anti-trust laws to the violations *which have already occurred*. Let us not expect the Department of Justice to do all the work; let us present our problems anew, and point out the complete remedies which present laws *guarantee*, if pressed. The Department did file a civil action against Columbia, but *no other action* has been instituted against that interest, and *Ohio cities, particularly, are still suffering from its aggressions*. Neither has any action—*of any kind*—been filed by the Department against the Cities Service, Standard Oil (New Jersey), and other monopolists who have flouted our laws.

I believe the evidence at hand should be submitted *without further delay, without fear and without favor*, to a grand jury. The American people, and not utility lobbyists, should decide whether the facts at hand are sufficient to remove the Dohertys, the Gosslers, and the Christy Paynes from further possibility of harm to this nation.* The stockholders of these companies, in their own interest, should, likewise retire the corporate officials who ignore their public responsibilities and by flagrant violations of the anti-trust laws, have placed in jeopardy the very assets of their companies. Let the American investor ask these managements why *Government Interference* has been necessary in these private businesses.

This, gentlemen, is the first full report The Cities Alliance has made to this Conference, which has been largely responsible for its formation. As Chairman, I have always regarded the Alliance as your own *strong right arm*; its achievements are *your* achievements, and I hope I can report still greater gains when the Mayors meet again in 1937.

I thank you.

A RESOLUTION BY UNITED STATES CONFERENCE OF MAYORS, NOVEMBER 18, 1936

RESOLVED, That a Committee of five members*, comprised of municipal officials interested and experienced in the problem of providing natural gas service for cities and in the operations of the natural gas industry, be appointed by the President of the United States Conference of Mayors, such Committee to be charged with the *duty of working with and co-operating with the proper Federal agencies in all problems concerning the general subject of the securing of natural gas service under reasonable rates*.

PART II

MONOPOLY ON PARADE

"In 1930 there were no major trunk lines from the Texas Panhandle and Hugoton, Kans., fields to the northern and eastern markets beyond Kansas City. Almost simultaneously a race began for the exploitation of that immense open territory which was then served by manufactured gas.

*President Fiorello H. LaGuardia, Mayor of New York City, on November 28, appointed the following officials to the Natural Gas Committee of the United States Conference of Mayors: John W. Smith, president of Detroit common council, Chairman; William J. Swoboda, mayor of Racine, Wis.; John Q. Carey, vice-mayor of Toledo, O.; Herman C. Wenzel, councilman and commissioner of public utilities, St. Paul, Minn.; William C. Reed, chairman of city council's public utilities committee, Cleveland, O.

"The record of that race and what happened to the various participants is an amazing story of high finance, suppression of competition, division of territory, and capture of control or forced receivership by established interests of independent enterprises which aspired to a share of the apparently large and profitable markets of the Middle West."

—FEDERAL TRADE COMMISSION.

"It is a tale of fraud, of contract violation, commercial bribery, blackmail, stock market raiding, of bold division of territories among the barons, and of impudent flouting of the anti-trust laws . . . This is as rich and colorful a yarn of modern commercial piracy as has come to my knowledge since Judge Landis broke up the old Standard Oil Company. The broad aspects of its revelations show that without Federal regulation, strict and sharp, the utilities can and do to this day dispose of competition in as ruthless a fashion as old John D. Rockefeller ever dreamed."

—U. S. SENATOR GERALD P. NYE.

"There has now been presented not only the picture showing wanton waste of gas and some producers fruitlessly trying to have their gas carried to market, while at the other end of the pipe lines communities asked for natural gas and received it not. Also there has been shown how little apparent consideration was given to the general public needs in the contests that have been waged between the unregulated dominant interests which control the great interstate transportation arteries and pipe-line systems for natural gas, and who in that manner also controlled both the intake and places, manner, and prices of the outgo or delivery.

"From the standpoint of legislation the Congress should know the identity of the human agencies by whom natural gas is provided, the policies put into effect by them, their underlying motives, and the effects of those policies upon the economic interest of the general public."

—FEDERAL TRADE COMMISSION.

"We shall hardly go astray if we prefer the test of conduct."

—JUSTICE CARDOZO.

MONOPOLY'S MARKETS "INVADED" BY INDEPENDENT PIPE LINE—DOHERTY THREATENS WAR

HOLDING COMPANY EXPLAINS EMERGENCY WHICH COMPELLED ITS SUBSIDIARIES TO CONTRACT FOR LOW-COST GAS SUPPLY IN MISSOURI AND ILLINOIS

Exhibit 6414-C (F. T. C. Report No. 82, Page 862-3.)

A. P. GREEN FIRE BRICK CO.,
Mexico, Mo., May 13, 1930.

Mr. L. E. FISCHER,
North American Light & Power Co., Chicago, Ill.

DEAR MR. FISCHER: We have been offered a contract by the Missouri-Kansas Pipe Line Co. to furnish natural gas for burning brick at our plants in Mexico. They are to build a pipe line from the Amarillo (Tex.) field to Indianapolis, which will pass within a few miles of Mexico.

They agree to enter into a contract to serve our plants for a period of 10 years. Their offer is satisfactory in every respect and the only question in our minds is as to their financial responsibility.

You have been given as a reference, and I should be very glad if you would tell me what you know about them and if they are a responsible concern with whom to enter contract.

Yours very truly,

A. P. GREEN.

Exhibit 6414-D (F. T. C. Report No. 82, Page 863)

MAY 14, 1930.

Mr. A. P. GREEN,
President A. P. Green Fire Brick Co., Mexico, Mo.

DEAR MR. GREEN: I am very pleased to acknowledge your esteemed favor of the 13th instant. We have just today concluded our negotiations with the Missouri-Kansas Pipe Line Co., for the purchase of gas from them for our central

Missouri and central Illinois properties and that fact alone speaks for our complete confidence in the ability of the Missouri-Kansas Pipe Line Co. to carry out their project.

I have had occasion to inquire into their financial ability and am not only impressed with the ability of Mr. Parish but also with the large amount of cash that they have on hand. Furthermore, Mr. Parish has surrounded himself with some very able natural-gas men and we think that he is in every way qualified to carry out his undertakings.

With best regards, I am,

Yours very truly,

L. E. FISCHER.

(Copy sent to Mr. F. P. Parish, Missouri-Kansas Pipe Line Co., Chicago, Ill.)

Exhibit 6436 (F. T. C. Report No. 82, Pages 927-8-9)

[Western Union]

NEW YORK, N. Y., May 25, 1930.

FRANK L. DAME,

North American Co., New York, N. Y.:

A man by the name of Parish is threatening to invade our natural-gas territory in Kansas and Missouri and it is common rumor that he has only been able to do this by the help and encouragement given to him by the Studebaker interests. I feel it to be my duty to advise you that if Parish interferes with us in any way we will feel free to invade any territory of the Studebaker people on any branch of the public-utility business or any of their principal stockholders.

HENRY L. DOHERTY.

[Western Union]

NEW YORK, N. Y., May 26, 1930.

FRANK L. DAME,

North American Co., New York, N. Y.:

Mr. Jones states that your office told him over the telephone that my telegram to you in regard to the help and encouragement given by the Studebaker people in the proposed raid in our gas properties was objectionable to you and that you would not discuss the merits of the matter until my telegram had been withdrawn. I have reread my telegram and cannot see that I said anything that was not fully justified under the conditions that then prevailed and I am anxious to make your refusal to discuss the merits of this proposition a matter of record for I will be perfectly willing to take any blame the industry sees fit to give me against that which I believe you are bound to receive.

HENRY L. DOHERTY.

[Western Union]

MAY 26, 1930.

H. L. HANLEY,

Vice President, North American Light & Power Co., Chicago, Ill.:

Dame received following wire from Henry L. Doherty: "A man by the name of Parish is threatening to invade our natural-gas territory in Kansas and Missouri and it is common rumor that he has only been able to do this by the help and encouragement given to him by the Studebaker interests. I feel it to be my duty to advise you that if Parish interferes with us in any way we will feel free to invade any territory of the Studebaker people on any branch of the public-utility business or any of their principal stockholders." We would be glad to have your comments before making reply.

EDWIN GRUHL.

[Western Union]

NEW YORK, May 27, 1930.

Mr. SAMUEL INSULL,

Chicago, Ill.:

Have asked Mr. Hanley to send you copy of Doherty telegram wired him yesterday. This morning have another message as follows: "Mr. Jones states that your office told him over the telephone that my telegram to you in regard to the help and encouragement given by the Studebaker people in the proposed raid on our gas properties was objectionable to you and that you would not discuss the merits of the matter until my telegram had been withdrawn. I have reread my telegram and cannot see that I said anything that was not fully justified under the conditions that then prevailed and I am anxious to make your refusal to dis-

cuss the merits of this proposition a matter of record, for I will be perfectly willing to take any blame the industry sees fit to give me against that which I believe you are bound to receive."

F. L. DAME.

[Western Union]

NEW YORK, May 27, 1930.

Mr. H. L. HANLEY,
Chicago, Ill.:

Will appreciate your sending Mr. Samuel Insull copy of Doherty message received yesterday morning. Have one this morning as follows which I am sending Mr. Insull: "Mr. Jones states that your office told him over the telephone that my telegram to you in regard to the help and encouragement given by the Studebaker people in the proposed raid on our gas properties was objectionable to you and that you would not discuss the merits of the matter until my telegram had been withdrawn. I have reread my telegram and cannot see that I said anything that was not fully justified under the conditions that then prevailed and I am anxious to make your refusal to discuss the merits of this proposition a matter of record, for I will be perfectly willing to take any blame the industry sees fit to give me against that which I believe you are bound to receive."

F. L. DAME.

NORTH AMERICAN LIGHT & POWER Co.,
May 27, 1930.

Mr. F. L. DAME,
President the North American Co., New York City, N. Y.

DEAR MR. DAME: I am enclosing a copy of the memorandum and also copy of my letter to Mr. Insull which was sent to him yesterday. I thought perhaps you might like to have this for your files.

I am sorry I did not have a chance to see you when last in New York. I hope you are feeling very much better.

With kindest regards, I am,

Sincerely yours,

CLEMENT STUDEBAKER, JR.

MAY 26, 1930.

Mr. SAMUEL INSULL,
Commonwealth Edison Co., Chicago, Ill.

DEAR MR. INSULL: As per your request I am enclosing a memorandum of our arrangement with the Missouri-Kansas Pipe Line Co., of which Mr. Parrish is president, and a map of the proposed Missouri-Illinois line; also the original telegram from Mr. Gruhl. I would appreciate your returning the map and the telegram. There is very little I can add to the statements of the memorandum. However, we have tried in every way possible to get along with the Cities Service interests and they have made it just as hard as possible for us in Nebraska and Kansas. All we have done is to try to protect our property and our interests. As you undoubtedly know we had a very difficult negotiation with the pipe line which came into St. Louis and lost some very valuable industrial customers in the East St. Louis area because we did not make the deal with them early enough. We have been facing the same situation in Missouri and Illinois with the Missouri-Kansas Co. I am very confident you or Mr. Dame would have handled the situation just as we did if you were operating this company.

We all try at all times to cause just as little embarrassment as possible for your interests and the North American, but always having in mind the interests of the North American Light & Power Co.

Very sincerely yours,

MAY 26, 1930.

MEMORANDUM CONCERNING THE MISSOURI-KANSAS PIPE LINE CO. INsofar AS THEIR LINE FROM THE AMARILLO FIELD TO INDIANAPOLIS IS CONCERNED

Missouri-Kansas Pipe Line Co. have proposed a pipe-line system as per map hereto attached.

Obviously the branch extending to Omaha would be very embarrassing to the best interests of the North American Light & Power Co. in mid-Kansas and would

obviously be embarrassing in respect to the Northern Natural Gas Company's activities.

More than a year ago the Missouri-Kansas Pipe Line Co. took up with us the matter of serving our central Missouri cities, a territory which the Cities Service Co. had refused to sell us gas for, and we made studies of the possibilities of the central Missouri situation and they did. Several months ago they wanted to open up active negotiations with us which we entered into. Moreover, in view of the obvious embarrassment insofar as their Omaha line is concerned, and especially as it relates to the best interests of the Kansas Pipe Line & Gas Co. (our company), we did invite them to make a proposition to us for central Missouri and central Illinois. The proposition they made us is much better than any the Cities Service Co. have ever made us and better than we ourselves would make and, therefore, in view of these and other absolutely ample considerations, we contracted to buy our gas supply for central Missouri and central Illinois from this company. We are satisfied that any other company sitting where we are would have done exactly the same thing and thereby have made a good trade for the best interests of all concerned.

While all of this has been going on, the Cities Service Co. have been embarrassing us in cities in Nebraska where we have franchises, and have had for more than a year, by asking for overriding franchises. They did not announce any intent of serving central Missouri until after we concluded our negotiations with the Missouri-Kansas Co.

CHICAGO, September 18.

DEAR MR. DAME: Have learned from two sources today that Mr. Gosler closed deal last night with Parish. He was negotiating for 70 percent interest which did not go through. I do not know at this time just how much of an interest Columbia G. & E. Co. was able to secure—nor do I know details. I am hoping to have this information shortly.

Very truly yours,

H. L. HANLEY.

DOHERTY AGAIN PROTESTS AID TO RIVAL PIPE LINE, SEES "ENDLESS POSSIBILITIES FOR TROUBLE"

PREDICTS INDEPENDENT NATURAL GAS SUPPLY "WILL INEVITABLY SMASH RATES TO COMPLETE DEMORALIZATION"; CHARGES "PREVIOUS UNDERSTANDING" WITH COLUMBIA

[From Federal Trade Commission's Report No. 84A, Pages 272-3-4-5]

[Western Union]

OTTAWA, ONTARIO, September 21, 1930.

CHARLES E. MITCHELL,
National City Co., New York, N. Y.:

The report in the New York Times of Friday morning to the effect that your company would finance the Parish natural gas line was a great shock to me. The building of this line is bound to seriously affect the credit of several important companies and perhaps the entire public-utility business, and it is unthinkable to me that you would, if you were properly informed, permit your company to finance an enterprise which is itself of questionable safety and therefore a menace to the public-utility business, also an assault on existing utilities and other projects well under way when this project was announced. Your people knew that this project was an assault on other utilities and plans and I am at a loss to know why they joined partnership in a project which, according to established rules of public-utility ethics, is classed as a raid. The Columbia went into this enterprise in spite of a previous understanding had with me, but tried to justify their negotiations with Parish on grounds of fear that Parish would raid their territory. The Columbia Co. may feel they have justification in the claim of the danger of competition to support this enterprise, but I know of nothing that justifies your company in supporting this enterprise. I am compelled to emphatically protest against what Parish proposed to do, and those supporting Parish are making it possible for him to carry out his plans, and to do so will inevitably smash rates to complete demoralization throughout the entire district reached by any of the concerns involved, and, while regretting the situation, I am prepared to meet this assault, if necessary, with counter assaults and mean to lay my views of this matter before each of the representatives of all of the public-utility companies and ask them for their support. I have an opinion that amounts to a conviction that this project will never be able to earn a return on the money invested. I have felt it my duty

to lay this much of the facts before you and to urge you to give careful consideration to the matter if you have not already committed yourself irrevocably to the enterprise. We most sincerely wish for continued pleasant relations with your company and will gladly give you any detailed information, but aside from the necessity of making this protest a matter of record we have no wish to force our views upon you.

HENRY L. DOHERTY,

[Western Union]

SEPTEMBER 23, 1930.

MR. HENRY L. DOHERTY,
Chateau Laurier, Ottawa, Ontario, Canada:

Our action in connection with the Panhandle Eastern Pipe Line was directed toward working out as constructive a solution as possible of a disturbed situation, rendered so by others before it was brought to us for consideration. We see no threat to other companies or the utility industry if they and it truly desire harmonious relations, are willing to give as well as take, and recognize established factors in the situation. The arrangement to which we are a party we consider to be a much greater step in that direction than another transaction which had been offered to Parish's company. We are informed and believe that no one in the recent arrangement wishes to demoralize any situation. We feel confident that the Columbia Co. has acted in the best way possible and advisable under all the circumstances, and we are sure that they have every disposition to be constructive.

C. E. MITCHELL.

[Western Union]

OTTAWA, ONTARIO, *September 23, 1930.*

C. E. MITCHELL,
National City Co., New York, N. Y.:

I thank you for your message, but I am still compelled to emphatically object to the part your company has played in this matter and the way your company has played its part, and I feel it is my duty to lay the matter before all of the public-utility organizations with my protest. Your people either did or did not know about the Eastern Gas pipe line under construction by us. If they did not know about it, they should have known about it, and others should know that your company did not know and yet assumed to be able to decide what should or should not be done. If they did not know about it, they should have consulted with us before giving their pledge of moral and financial support to Parish. I have spent my life in the public-utility business and my associates are also skilled by long experience in the public-utility business, but I must object to the extreme immodesty of your men in assuming that they can step into a situation of this sort in which we have pledged our reputation and expenditure of millions of capital, and do so without consulting with us and assume they could do what they assumed we could not do and could do this without then asking about our plans. They must have known we had some plans or they must have assumed that we had no plans. They made no effort to learn whether we had any plans or not and presumably cared nothing about our plans. We are glad to be assured that you are willing to give as well as take, but in this instance we neither asked you to give nor did we consent that you should take, and our position in the matter certainly entitled us to be consulted before you bolstered up the credit of an ill-considered raiding enterprise and joined partnership with a man whose performance has made him, in my opinion, a bad risk from a business and moral standpoint. I realize that this statement may be libelous if untrue; but I think if anybody chooses to start a suit against me, it will make it an easy matter for me to prove by court evidence that your company in this instance has not insisted on the same standards as were demanded in the back years when your institution was being built up in reputation and magnitude. You know I have always held you in high esteem in those various lines where you are qualified to speak and enjoy the advice of a qualified staff, but I cannot allow you to assert that without any attempt to learn the facts that your off-hand opinion would be better than the conclusion reached by myself and associates and based upon months of investigation by our trained staffs. You say you and the Columbia Co. have done it for the best and assure us there need be no lack of harmony. You, perhaps, are not in position to know what we are willing or not willing to concede for the sake of harmony. Mr. Parish proposes to take our markets in Kansas; and even if the Columbia is willing to surrender their Ohio markets to us, this does not eliminate all of the other disturbing factors in the situation. Frankly, I think your young men have

made a bad mistake in this matter and the sooner you acknowledge this, at least to yourselves, the better it will be. I have tried to be temperate in this matter, and if you still subscribe to the views expressed in your message, I do not see that we can get anywhere. I am still of each and every opinion expressed in my first message; and if only for reasons of personal friendship for you, I regret to say that I have no choice except to regard this as being an assault on us by Parish in which you voluntarily and without justification and without consulting us have given Parish your support. There are endless possibilities for trouble in this matter, and not the least of which is the fact that people who would have shunned this enterprise, both on account of its character and its plan, might now be willing to buy out Parish and become the partner of your company and the Columbia Co., and then Parish might be found building another line for somebody else to buy.

HENRY L. DOHERTY.

[Western Union]

SEPTEMBER 24, 1930.

Mr. HENRY L. DOHERTY,
Chateau Laurier, Ottawa, Ontario, Canada:

Your telegram of yesterday received. I see nothing to add to my message of yesterday. As you doubtless know, the contract was signed last week. I understand Columbia has communicated with your company and I hope that a harmonious arrangement may result.

[Western Union]

C. E. MITCHELL.

OTTAWA, ONTARIO, *September 24, 1930.*

CHAS. E. MITCHELL,
National City Bank, New York, N. Y.:

Our Mr. W. A. Jones has arrived here and says that our people in New York are very much disturbed by what has transpired regarding this Parrish transaction and naturally do not want this situation to disturb the pleasant relations we have had with your company, but I have told him my views on the matter, and he is now not only in complete harmony with me in the matter, but has talked with our people in New York, and they also see that the position I have taken is a matter of necessity, but they want me to tell you some of the reasons for this. Parrish has claimed he was not trying to injure us and yet as soon as this deal was announced he or his officials went to the Kansas City Star and said this deal would enable them to give Kansas City cheap gas, and we are now being subjected to the merciless castigation of that paper, based on the support you and the Columbia have given Parrish. We are already in the position of being forced to sell gas for 14 cents in Kansas City, and if cheap gas is a good thing for Kansas City, then Parrish and his partners should sell cheap gas in their markets. I made a deal with Crawford and Gossler last summer, and they have recently expressed the intention of abrogating it. In the last interview I had with them they had to admit that what they are now proposing to do was in violation of our previous understanding and their only justification was the statement that they thought I was joking. I have been compelled to take the matter up with you because if we waived our previous understanding and reach a new one they could just as well come back at any time and again announce a change of plans and again say they thought I was joking.

HENRY L. DOHERTY.

WOMAN RELATES ESPIONAGE FOR CITIES SERVICE WHILE WORKING FOR COMPETING FIRM

"I WAS TO LET THEM KNOW WHEN MISSOURI-KANSAS WAS COMING INTO THEIR TERRITORY, COPY EVERY CONTRACT, ALL AGREEMENTS," SHE TELLS F. T. C. EXAMINER

[From Federal Trade Commission's Report No. 83, pp. 47 to 64]

An Examination by the Federal Trade Commission, November 15, 1935.

ELSIE V. WALKER was thereupon called as a witness for the Commission; and, having been first duly sworn, testified as follows:

Direct examination by Mr. WOODEN:

Q. Where do you live, Miss Walker?—A. 5727 Brooklyn, Kansas City, Mo.

Q. Are you now employed?—A. I am not.

Q. What was the last employment that you had?—A. I was with the Government, in social-service work.

Q. And about what time, and for how long?—A. I went to work for them in January 1934 and worked up until the time of the trial in Chicago, in April 1935.

Q. When you speak of the "trial," what do you mean?—A. I mean Mr. Parish's trial in Chicago.

Q. Did you testify at that trial?—A. I did.

Q. Prior to your employment in this social service work, or whatever it was, what was your next preceding employment?—A. Well, with Missouri-Kansas Pipe Line Co. in Chicago, till May 1932; then I had not worked from 1932 till January 1934.

Q. How long were you with the Missouri-Kansas Pipe Line Co.?—A. From August 1930 until May 1932.

Q. Will you tell us how you came to be employed there?—A. Well, I—you mean to start with my former employment?

Q. Yes. Instead of that question I will ask you this: Prior to your employment at the Missouri-Kansas Pipe Line Co., what had been your employment?—A. Well, I was with Cities Service Co. and their subsidiaries.

Q. Where?—A. In 1923 I went to work for Union Public Service Co., in Kansas City, and in January 1924 these companies were purchased by the Cities Service Co., and they organized a company which was known as the Gas Service Co., and I worked in the engineering department there. My immediate supervisor was Mr. W. J. Hinchey, and I worked there as his secretary and sold securities up until he left, in March of 1929, to go with Missouri-Kansas; but I stayed on with the Gas Service Co.; and there was so much tension about my having worked for Mr. Hinchey that they let me out, in October of 1929, and I didn't work until November 11; and I went to work for Henry L. Doherty & Co., in Chicago, in their securities department.

Q. How long did you work there?—A. I worked there till I went to work for Missouri-Kansas, which was in August of 1930.

Q. What was the general nature of your duties while working at the Doherty office in Chicago?—A. Well, I took dictation and did stenographic work, and then I was sent to Cincinnati, in June of that year. They had some trouble there, their manager had embezzled some money, and I was sent down there to take depositions.

Q. And under whom, there, did you work?—A. Well, Mr. Schafer was the man that embezzled the money; but there were some fellows there from New York, and Mr. Shannon—that is when I met him—was at Cincinnati.

Q. What was his first name?—A. Thomas W.

Q. And you met him at Cincinnati, while you were taking these depositions?—A. Yes; and I did some work for him at that time, in Cincinnati.

Q. And was he part of the Cities Service organization there?—A. He was.

Q. What was the nature of his work there?—A. Well, he was directing a lot of this investigation in regard to the embezzlement, and he was interviewing people, and I also took quite a bit of dictation on that, from Mr. Shannon.

Q. Was Mr. Shannon a detective?—A. Well, they called him "undercover worker," what they generally term it. It was generally known that that was his type of work.

Q. You became very well acquainted with Mr. Shannon?—A. Well, of course, I had known him in Kansas City. His home was in Kansas City; used to come to the Gas Service office. He wasn't any stranger to me at that time.

Q. As I understand it, you finished that work there in Cincinnati, some time in the summer of 1930; is that right?—A. Yes. I was there about 5 weeks in July, I think it was.

Q. Were you then on detail, so to speak, from the Chicago office?—A. Yes.

Q. Of Doherty & Co.?—A. That is right; but they had sent a wire, or something, that they were going to have to lay off some employees, and suggested that I try to get employment in Cincinnati; and Mr. Van Seaman had been sent there, as a new manager and, of course, I was acquainted with him. His hometown was in Kansas City, and Mr. Seaman came to me and asked me if I would stay there and be his secretary; and one day or so later, why, I thought arrangements had been made, and Mr. Shannon had interviewed me, in the meantime, and Mr. Seaman called me in and said that it would be impossible for him to hire me at that time, that he would have to keep the girls that they had.

Q. Did you make some effort, then, to locate other employment?—A. Well, of course, I was at a disadvantage. I was in Cincinnati. I planned to go back to Chicago, and I had just received a wire from my broker in Kansas City saying that they had to have \$600 or they were selling out all of my account.

Q. Had you been buying some Cities Service securities?—A. Yes; I had. Ever since I had been employed by Cities Service, in '24, I had been.

Q. You were buying them on margin?—A. Well——

Q. Or on installments, or what?—A. Well, installments. I had bought it from a local house in Kansas City. There were 30 shares of common at 51½. The one bunch that was in need of money, and then I had bought other securities through the customers' ownership campaign. They held them and sold them to employees, and I bought.

Q. Now, as I understand it, at the same time you lost your job in Cincinnati, you got this notice from the broker, calling for \$600?—A. Absolutely.

Q. What happened then?—A. Well, I put in a number of long-distance calls, tried to get some money, and I was sitting there, crying, when Mr. Shannon came in. Then, of course, he asked me what was the matter, and I told him, and he said he would like to see me later on that evening, and he and Mr. Olcott, I think, was the man's name. He was assistant prosecuting attorney of Cincinnati; came to my room and we talked it over, and he said that he would like to be able to put a lot of confidence in me, and that he could help me and give me a job; and it was then that he suggested this work for him.

Q. What work did he suggest for him?—A. Well, he outlined it as that all my duties would be to try to secure employment with Missouri-Kansas, through Mr. Hinchey.

Q. Your former superior?—A. Former employer.

Q. At Kansas City?—A. At Kansas City, who is now connected with Missouri-Kansas, and all they wanted to know was when Missouri-Kansas would be getting contracts or infringing upon your properties; and that is all the information he said I would have to do; and I talked it over with Mr. Olcott, and he said he did not see any harm in my doing that. He said, if everything was all right, that it would not hurt anybody, the truth would not; and if there was anything wrong, I would be doing a great favor by accepting this employment.

Q. Well, were arrangements made at that time for compensation?—A. Yes. He told me he would pay me \$200 a month and help me pick up my stock in Kansas City.

Q. Did he give you assistance in the matter of the stock?—A. Well, a little later.

Q. Well, will you state now what assistance he did give?—A. Well, the next I saw of Mr. Shannon, he came to Chicago, the latter part of July, and paid me, I think, around \$100 in advance, to start working for him.

Q. Had you, meanwhile, obtained employment with the Missouri-Kansas?—A. I didn't finally get to work for them till August 20, around August 20, the next month.

Q. You got this first payment from Mr. Shannon in July?—A. Yes; ahead of time.

Q. And did you obtain the employment through Mr. Hinchey?—A. I did.

Q. What was the arrangement as to compensation, aside from this first \$100 that you say Mr. Shannon paid you?—A. Well, he was to give me \$200 a month.

Q. And was that amount paid you?—A. Yes, sir.

Q. For how long?—A. That was pay for up until May 1932.

Q. From August 1930?—A. 1930.

Q. Was there some arrangement by which part of that amount was credited to your broker account, on the stock?—A. Yes; my stock was up at the Mercantile Trust Co., in Kansas City, and Mr. Shannon made arrangements with the Linwood Bank, in Kansas City, to pick up my securities at the Mercantile, and carry my account at the Linwood. That is where his account was; and \$100 was deposited on my stock, each month; and then, the other \$100, for my checking account.

Q. Do I understand that Mr. Shannon paid the \$100 directly at a bank, there, on your stock?—A. I do not know just what arrangements he and Mr. Williams, the president, had, but they arranged; whether it was taken out of Mr. Shannon's account, and sent direct, I don't know just how that was handled.

Q. Do you know as a matter of fact that your account was credited with \$100 a month for a period of time?—A. Yes, sir.

Q. Did you get that knowledge from the bank, on reports from the bank, to that effect?—A. Mr. Williams just told me each month that he was doing that.

Q. Then there was a period of time, as I understand it, when the only payment you received in cash, you may say, was \$100 a month, and the other \$100 went on your account; is that right?—A. Yes; that is right.

Q. Then, was there a later period when the stock account was closed up and you got the entire \$200?—A. Yes; but I don't know just what date that was.

Q. Can you give us any idea of the period during which you received the \$200 per month, in cash?—A. Well, it was all at the bank. The transaction was down at the bank, except there were some times when I would wire him for some money, and he would send me some.

Q. In what form were the payments made by Mr. Shannon to you?—A. You mean in the wire?

Q. No; did he give you a check or cash or money order, or what?—A. I don't understand your question.

Q. I mean, just forget the payments made on your account, on account of the stock.—A. Yes.

Q. And the payments that you received direct, yourself, in what form did you get them? Was it in cash or check, or what?—A. Oh, they were Western Union money orders.

Q. Well, that is what I want to get. Western Union money orders? Always?—A. I just couldn't say as to that.

Q. For the most part, do you think they were?—A. Well, that only happened twice, I think, I had requested a money order. One time I know that I sent for some money, \$25, and his wife sent it in a letter, and the letter was special delivery, I think, but I never did get it.

Q. Well, the regular monthly payments, then, do I understand correctly, were simply credited to your account at the bank?—A. That is it.

Q. And these payments that you got direct were just occasional?—A. Yes; very seldom.

Q. And did you get statements from the bank, from time to time, showing the depositing of those funds to your account?—A. Yes, sir.

Q. And you were with Mr. Shannon, as I understand it, when he made that arrangement with the bank?—A. I was.

Q. Whose idea was it that you approached Mr. Hinchey for employment?—A. Mr. Shannon suggested it, and he was the one, the person that I had worked for, and was the logical approach.

Q. Did you report immediately your success in getting employment at the Missouri-Kansas office with Mr. Hinchey?—A. Yes, sir.

Q. You reported to Mr. Shannon?—A. I did.

Q. Did you have more or less frequent long-distance phone conversations with Mr. Shannon?—A. Yes, sir.

Q. At whose expense?—A. Always at his. The calls were reversed.

Q. Did he leave you free to use your own discretion in calling him up whenever you felt like it?—A. He did.

Q. What were you paid by Missouri-Kansas Co. for working there?—A. Well, \$130 at first. I worked from August to about the 1st of October, and then they laid off about all of the employees, and I didn't work, then, up until December and, of course, I worked for Frank P. Parish & Co., at first, when I got the \$130, and then it was called the Missouri-Kansas Pipe Line Co. in December, when I went back to work.

Q. And did that remain your compensation, \$130?—A. No. I went back to work for \$110, with Missouri-Kansas.

Q. So you were drawing a larger amount from Mr. Shannon than you were from the Missouri-Kansas office?—A. Yes, sir.

Q. What was the nature of your duties rendered to the Missouri-Kansas Co.?—A. Well, just most anything they do, take dictation, or typing, and I even worked on stock books that were kept there in the office, and did filing.

Q. Did you have access to the files?—A. Oh, yes. In fact, I reorganized all of the Missouri-Kansas files for them.

Q. You did?—A. Oh, yes sir.

Q. Would you say that you were generally familiar with everything in the files of the Missouri-Kansas Co.?—A. Well, that is a broad statement.

Q. I know. I didn't mean the details, but you knew what files there were, the various folders and filing cabinets, and what was in them, and to what they related?—A. Yes. I had the key to most of them.

Q. Did you have access to those files after office hours?—A. Well, we never, very seldom, stayed after office hours.

Q. You could have, though, if you had wanted to; is that what you mean, but you didn't?—A. Well, I didn't stay after office hours—very seldom, unless there was someone else there, and there wasn't—

Q. What was it you understood you were to do for Mr. Shannon while employed in the offices of the Missouri-Kansas and Parish & Co.?—A. Well, as I explained, at first, that I was just to let them know when the Missouri-Kansas was coming into their territory and then—

Q. That is, when you undertook the employment?—A. Yes.

Q. Well, did you receive specific instruction from Mr. Shannon, from time to time, to find out certain particular things?—A. I did.

Q. Can you name any of the particular things you were asked by Mr. Shannon to obtain?—A. Well, I went back to work in December, for Missouri-Kansas. That was right at the time that the Columbia Oil & Gasoline gas company's contracts had been negotiated, and they were all sent to Chicago, and I had been assigned to copy every contract that they had in that deal that they made, and all the agreements, and the voting trust, and what not, that they had. That was all I had to do, was to type all those things.

Q. Well, do I understand that Mr. Shannon asked you specifically to get that information?—A. To give him, about the New Deal. He was very anxious, the first night it was signed; he had me call him, and he was down in Kentucky. I forgot the name of the town. I know he said Mr. Olcott was with him, and I called somebody else in Kentucky, and told him that the contract had been signed with Columbia.

Q. That was, according to the record here, the contract—A. September 17.

Q. The contract of September 17?—A. Yes; that was it.

Q. Of 1930?—A. And I gave him this later.

Q. Did Mr. Shannon give you any information as to how you could procure copies of material that he wanted, so as to get it out of the office without being detected?—A. Yes. He told me never to take any original papers or letters, and always, if I copied anything, I was to take two pieces of carbon paper, being sure that they were new carbon and had not been used before, and you placed the two sheets together, and then put them in, your first sheet and your copy paper, and that would transcribe the letter just as plain on the second carbon as it would on the copy of your letter.

Q. Did you make any copies of current correspondence in that way?—A. Well, the ones I thought were most important; yes.

Q. Do I understand from that, that if somebody in Missouri-Kansas dictated a letter to you on a certain day, that you used this arrangement, and made an extra copy of it for Mr. Shannon?—A. The carbon; yes.

Q. And did you use your own discretion as to which letters would be of interest to Mr. Shannon?—A. Yes; in some instances, of course.

Q. And was that sort of thing going on during the entire period of your employment, from August 1930 until along in 1932?—A. Most of '32; yes.

Q. How did you get papers out of the office without arousing any suspicion?—A. Well, I had a purse that had a zipper compartment, and I would often put these copies in it, in the back of the purse.

Q. After you took such papers away, or copies of them, what did you do with them?—A. I sent them to Mr. Shannon, the first—all the Columbia contracts, and all. I took them home with me on Christmas, and took them directly to Mr. Shannon's house, and gave them to him, and he was so pleased with it that he gave \$50, then, I suppose, as a Christmas present.

Q. Was that the way you always delivered the papers to Mr. Shannon, in person, or did you send them by mail, at times?—A. I wrote him letters, at times.

Q. Did he write you letters? A. Not very often. When he did, he would send them to the box that I had in Chicago, and then he would ask me to return them at once. I always had to return his letters, and never got to keep them.

Q. What about this box? Was that a post-office box?—A. It was.

Q. Who arranged for that?—A. I did.

Q. And who paid for it?—A. Mr. Shannon.

Q. Was that paid for out of the money which you received or paid direct by Mr. Shannon?—A. Well, he would give me extra money to pay for it.

Q. How long did you have a box there?—A. I don't just recall how long I had it. I know I had one box I got in September, and then the time expired on that, and I had to get another box, and I just couldn't say how long I kept it.

Q. Why didn't you receive such mail at your residence?—A. Well, it was Mr. Shannon's suggestion that I get the box.

Q. Did you have a roommate who was also employed at Missouri-Kansas?—A. I did not.

Q. Or in connection with any of the Parish companies?—A. No.

Q. You did have a roommate, did you not?—A. Yes, sir.

Q. Did she in any way figure in any of these transactions you have been describing?—A. She tried to figure in.

Q. What do you mean by that?—A. Well, that was Miss Boatman, her name was, and she knew that I was working for Mr. Shannon, because Mr. Shannon had come to our apartment, when he came to Chicago, and she knew that Mr. Shannon owed me some money, but Mr. Shannon got worried, toward the last, and was afraid to put the money in the bank because the Government got in,

investigating the case, and so it was about \$500 back rent—I mean back salary—that he owed me, so Miss Boatman thought we should try to get it from the Cities Service.

Q. Did you ever get it?—A. Oh, yes. I got it in Kansas City, later.

Q. From whom?—A. Mr. Shannon.

Q. Did you have any form of code for use in communicating with Mr. Shannon?—A. I did.

Q. What was that?—A. Well, we had all the officers and directors. They were given the name of a fruit, and I don't recall all of them, but Mr. Parish was "persimmon", and Missouri-Kansas was "lemon." Mr. Hinchey was "peach." I think you had better read them.

Q. Well, I think that illustrates sufficiently what I had in mind. Who chose the designations for those various persons and companies?—A. Mr. Shannon suggested that we use fruit, and I suppose the two of us together compiled that.

Q. Could you state what the code designation for Cities Service was?—A. I don't recall which way it is, either "dewberries", or "blackberries."

Q. According to your affidavit, it was "plum."—A. Oh, I see. That was the New York and Chicago Exchange, "dewberries" and "blackberries."

Q. Did you furnish Mr. Shannon with information as to the personnel and organization and set-up of the Missouri-Kansas Co.?—A. I did.

Q. Did you let them know what salary the different individuals were drawing?—A. Yes; as far as I could find out. I know I told him a number of them.

Q. You did, to some extent anyway?—A. Yes; I did.

Q. Did you furnish Mr. Shannon with information as to the apparent influence of each of the prominent individuals in the company?—A. I did.

Q. Did Mr. Shannon sometimes send you money addressed to your roommate?—A. He did, on one or two occasions.

Q. Was it indicated to be for you, and did you actually receive it, through your roommate?—A. After she had opened it.

Q. All right, but you got it?—A. Yes. He sent those in other names, too.

Q. What do you mean?—A. Other names. When he sent them in by Western Union, he signed other names, other than his own.

Q. How do you know that?—A. Well, if I recall right, I think one of them was "Blanch Thomas", and "Major Woodall", I think, was the other.

Q. And how do you know they came from Mr. Shannon?—A. Well, I talked to him on long distance, and he told me they would come that day.

Q. Did you make any effort to obtain information from other girls, or other employees in the office, for the benefit of Mr. Shannon?—A. Yes. I found the girls knew quite a bit about what was going on, and I often had them at the apartment, and cooked them a dinner, and we would go to the show, and made it my business to be with them as much as I could, to get that information.

Q. And did you get some information in that way?—A. I did.

Q. And what did you do with it?—A. Of course, I always sent what I thought would be valuable to Mr. Shannon.

Q. You never kept any copies of your communications with Mr. Shannon?—A. No.

Q. Did you ever discuss that matter with him, as to whether you might retain copies?—A. Well, we generally understood that I would not.

Q. Was it ever discussed?—A. I cannot say that it was; but it was just my impression that I wasn't supposed to.

Q. Did you pay for this entertainment of your associates in the office, out of your own funds, or how was that handled?—A. Well, oftentimes he would give me money. I know one dinner party cost me \$15, and he gave me the money for that. Other times, I would take it out of my own money.

Q. Was that your idea, or his, that you might entertain your friends in the office, to advantage?—A. I suppose it was both of ours, with an agreement to.

Q. At any rate, he knew what you were doing?—A. Yes, sir.

Q. And, as you said, paid you, or reimbursed you for it, sometimes? Did you supply Mr. Shannon with any information as to the stage of construction which the Missouri-Kansas or Panhandle Eastern line had reached?—A. Yes; we used to get either daily or weekly reports. I think they were weekly reports. I think they were weekly reports in the office, saying how many customers had been connected with the line, and just how many miles of pipe had been laid; and would take their information off those reports, and send them to him.

Q. Did you supply him with any information relating to the contracts being negotiated for the sale of gas?—A. Well, as many as we had in the office. We had a lot of Kentucky Natural contracts in the office, but most of the Panhandle

ones would be handled out of the Kansas City office, and I would tell him as many as I could find out, about those that would appear on those weekly reports; but those other contracts we had in the office, and I always kept him informed on those.

Q. How frequently were you in touch with Mr. Shannon during this employment?—A. Well, practically all the time. I could reach him at any time I would have to.

Q. Well, how often did you communicate with him, or write to him or talk to him?—A. Well, that is hard to say now, exactly, because I would make as many reports as I had something. Maybe it would be every day; maybe it would be once a week, or just whenever I had anything, I sent it right out.

Q. Would you say there were some times when you were in touch with him every day, over a considerable period?—A. Yes, I should say that, because when there would be something, some deal pending, why, he would want to know. I would call him at night, or—

Q. When you entered the employ of Missouri-Kansas in August 1930 did you become aware of negotiations then pending between Missouri-Kansas and Columbia Gas & Electric?—A. Yes. I took the dictation from New York, over the wire, that the contract had been signed, and then that was around September 17, and I knew that all the executives were in the East on that deal, at the time.

Q. Did you supply Mr. Shannon any information regarding that deal before it was consummated?—A. I cannot—

Q. In other words, before September 17?—A. I kept telling him that they were negotiating. I don't know just what the nature of my information was right now, but—

Q. Did you at any time inform Mr. Shannon that the Missouri-Kansas Pipe Line Co. was in no position to complete construction beyond the Mississippi River?—A. I did.

Q. Did you give him any information as to the financial condition of the company?—A. Yes. I was working for Mr. McWilliams, as I was supposed to be Mr. Stafford's secretary, and he was in the East and Mr. McWilliams was his assistant, or worked under him in the same department; and I know Mr. McWilliams had written a letter to New York, by mistake, from Mr. McWilliams to Mr. Preston, and in this letter he related the circumstances of the company; they were in bad shape financially.

Q. Did you supply a copy of that to Mr. Shannon?—A. Just from memory.

Q. Just information? Did you supply Mr. Shannon with any information about the negotiations going on with the National City Bank of New York?—A. Yes. We knew they were negotiating, and then, later, I supplied him with a loan that was made, with copies.

Q. You mean a copy of the contract?—A. Yes; you see I copied all of those that—at that time.

Q. Did you supply Mr. Shannon with any information relating to the Central Public Service Co. contract?—A. Yes; that was Mr. Ogle, wasn't it?

Q. Mr. Ogle?—A. Yes.

Q. What was your answer?—A. Yes.

Q. Can you say what information you supplied Mr. Shannon with about that matter?—A. I just don't recall it, but may I read—something about \$50,000, or something.

Q. What is the paper you are referring to, to refresh your recollection?—A. Told Mr. Shannon to—

Q. Well, first answer that, will you please?—A. What is it?

Q. What is the paper which you are referring to, now, to refresh your recollection?—A. This is the affidavit I signed for Mr. Parish.

Q. When?—A. Well, this is not dated, but it was—

Q. Well, there is an acknowledgment there of the notary, isn't there?—A. No; it is not dated, but it was around—

Q. What is that date [indicating]?—A. This is "expires."

Q. That is right.—A. But it was the last of April of 1932.

Q. Now, what was this information about a Central Public Service deal that you sent Mr. Shannon?—A. May I read just this: I told Mr. Shannon that Mr. Parish, in order to speed up the closing of Columbia Oil & Gasoline Corporation, had made a deal with Mr. Ogle, of the Central Public Service Co., in which Mr. Ogle was to receive \$50,000 by reason of his making overtures to Missouri-Kansas Pipe Line Co., to bear the Columbia Oil & Gasoline Corporation to the closing.

Q. How did you get such information?—A. Well, in the office. There was a copy of that in the office. I think there was.

Q. Did you give Mr. Shannon any advice as to what he ought to do with reference to these negotiations with Columbia and National City Co.?—A. I don't recall that part of it.

Q. Does that affidavit refresh your mind on that?—A. (reading): "I told Mr. Shannon that he must stop the bank negotiations with the National City, and also with the Columbia, as the future of Missouri-Kansas depended on this deal."

Q. Did you give him any information? Were you aware at that time of the protest made by Mr. Doherty, in telegrams to the National City Co.?—A. Copies of the telegrams came in a little bit later, and I told Mr. Shannon about them.

Q. Is it a fact, as stated in this affidavit of yours, that you had seen wires that Mr. Doherty had sent from Kansas City to Columbia Oil & Gasoline Corporation, in regard to that National City deal?—A. That was the copy of the wire that was in Chicago. I don't remember just the nature of it, except that it was bad business to make the loan.

Q. We have those wires which you refer to, in the record. They are from Mr. Doherty to the National City Co.—A. Yes.

Q. My question was whether you had also seen wires that Mr. Doherty sent to the Columbia Oil & Gasoline Corporation?—A. I don't recall that, right now.

Q. Well, does your statement in your affidavit refresh your recollection on that?—A. I must have, if I said so. I don't recall it now, though, because—

Q. Would you say that the statement you made in that respect in the affidavit was true?—A. Well, I made that affidavit in a hurry, and I might have overlooked that one part of it, I wouldn't say for sure. I wouldn't want to be quoted on that Columbia, because I remember the National City, but just at this moment I do not recall the other, but I understand there were such wires.

Q. You say you understand it. Do you mean that you have seen them, or what is the basis of your statement?—A. I wouldn't put it that way, no; that I had seen them, because I don't recall, at this—

Q. Did you supply Mr. Shannon with any information as to the publicity that was going on in the newspapers in Chicago, derogatory to the Missouri-Kansas Co.?—A. Yes; I did. Mr. Vanderpool was writing quite a number of articles at that time, and Mr. Shannon asked me to clip them out of the paper and send them to him, and he was very much amused over these articles, and he followed them with a good deal of interest.

Q. Did you provide Mr. Shannon with any of the balance sheets of the Missouri-Kansas Pipe Line Co.?—A. Yes, sir.

Q. Was that on your own initiative, or at his request, a special request?—A. Oh, he suggested that I send him papers, if available.

Q. Did you ever communicate with Mr. Shannon, through Mrs. Shannon?—A. Yes. I often called their home, and if Mr. Shannon was not there, Mrs. Shannon would tell me where to reach him; and I have been to their home and talked to Mrs. Shannon.

Q. Did you ever write to Mr. Shannon, addressing the letter to Mrs. Shannon?—A. Addressing the letter to Mrs. Shannon?

Q. Yes.—A. I cannot say for sure, right now.

Q. Did Mr. Shannon ever request you to supply information on these points: Names and title and position held by the various executives of the company?—A. Yes, sir.

Q. The indebtedness of the company?—A. That is right.

Q. Referring to your affidavit, and with it to refresh your mind, will you state the other subjects on which he requested you to supply information?—A. Read them?

Q. Yes.—A. (reading). "The number of towns being served, the Panhandle Eastern Pipe Line Co.; number of customers, domestic and industrial; the total gas sales and M cubic feet; price received for each M cubic feet, or total revenue; progress on the line; to keep him advised of financial ability of Missouri-Kansas Pipe Line Co. to meet the interest on the \$20,000,000 bond issue; report any defalcation on Moka's part to meet interest on above bond issue, as Columbia automatically takes over Moka's interest in the line; contract furnished Mr. Shannon; to keep him advised as to the number of right-of-way contracts obtained from Moka to cross the State of Illinois."

Q. And did you actually supply him with information on all those subjects?—A. I did.

Q. Did you get, at the Chicago office of Missouri-Kansas, weekly reports from the Panhandle Eastern line?—A. I stated that.

Q. And you furnished copies of those reports?—A. Yes, sir.

Q. Did you supply Mr. Shannon with any information about the contract with the National Supply Co.?—A. Yes; to furnish pipe to Missouri-Kansas.

Q. Did you advise Mr. Shannon at any time as to the sources from which Missouri-Kansas pipe line was obtaining its money to meet its interest obligations?—A. Yes. I told him about Mr. Mayo loaning the company money from time to time.

Q. What information, if any, did you give Mr. Shannon, with reference to the proposed extension of the Kentucky Natural Gas Co.?—A. Well, I told him about the company wanting to extend their line to Indianapolis, and that Mr. Curran had an office in Indianapolis at the time, and was trying to, had a lot of contracts signed, and they were trying to serve the city.

Q. Did you supply him with copies of any of the contracts which had been obtained at Indianapolis?—A. I did.

Q. Was the information you supplied with reference to Kentucky Natural Gas Co. similar to that which you supplied about the Missouri-Kansas?—A. Yes; told him about their franchise and about their contracts and also—

Q. Was that information about Kentucky Natural supplied on your own initiative or at your own discretion, or was that something that Mr. Shannon specially requested?—A. No; that was—Mr. Shannon asked me that, because that was about the main source of revenue for the company at that time, was through the Kentucky Natural.

Q. Why do you bring that in?—A. Well, I mean that they were selling their gas there.

Q. Well, what I am getting at is, did Mr. Shannon say anything to you about that being their main source of revenue? In other words, that is just your idea of the reason he wanted it?—A. Yes.

Q. Did you provide Mr. Shannon with any information about the progress of negotiations and contracts around Terre Haute?—A. I did.

Q. Do you remember any particular information that you provided him with, in that connection?—A. Well, I gave him a list of these contracts, and told him how much they were going to pay for their gas, the price of their gas, and just a general summary of the contracts.

Q. Did you give him any information about any contracts at Nashville, Tenn.?—A. Yes, sir.

Q. And what was that?—A. Well, I made him a copy of the Nashville contract. It was to supply gas to Nashville.

Q. Did you provide Mr. Shannon with any information about the negotiations between Missouri-Kansas and J. H. Hillman?—A. Yes, sir.

Q. Where?—A. Well, Kentucky Natural was getting a loan from Mr. Hillman, for their properties, and I gave Mr. Shannon the details of this indenture and as much information on it as I could.

Q. Was that particular information given him on your own initiative, and without any special request on his part?—A. I just cannot say that, how definite that is, whether it was a request or my initiative.

Q. Did you provide Mr. Shannon with any information concerning negotiations between Missouri-Kansas and the United Power & Light Co.?—A. Yes, sir.

Q. What was that?—A. Well, if I recall correctly, it was concerning the extension of the Panhandle Line.

Q. Where?—A. It was to Detroit, wasn't it?

Q. Did you advise Mr. Shannon with reference to any of the articles appearing in the Chicago American by Mr. Vanderpool?—A. I gave that. I did.

Q. You mentioned it, I remember, but did you tell him anything about the Missouri-Kansas efforts to find out what was behind those articles?—A. Yes, sir.

Q. What did you tell him?—A. I told him that Missouri-Kansas felt that Mr. Vanderpool was being encouraged by some outside interests, and they suspected it was Cities Service.

Q. Did you describe to him any efforts that were made by Mr. Shaw, with regard to finding out about the Vanderpool articles?—A. May I read that?

Q. [Hands the affidavit to the witness.]—A. Yes, sir.

Q. What did you tell Mr. Shannon about that?—A. I told him Mr. Parish had employed Mr. Shaw, of Winston, Strawn & Shaw, to investigate these articles, and that unless they were stopped there would be litigation that would follow.

Q. Did you tell Mr. Shannon anything about any projected extension of the Panhandle Eastern into Ohio?—A. Yes. That was the time they were negotiating with the Otis bankers. Mr. Eaton, I believe, was the name. He had been to the office, and they were trying to make a deal with him to extend this line.

Q. Do you remember anything Mr. Shannon said when you reported that to him?—A. He said yes, that—in substance, that was getting into their property.

Q. Did you tell Mr. Shannon anything about the efforts of Missouri-Kansas to get into Indianapolis?—A. Yes. I told him that Mr. Curran had charge of that, and they were signing up a number of contracts in Indianapolis, Mr. Curran had an office there; they were trying to serve the city of Indianapolis.

Q. Did you supply that information on Indianapolis, on your own initiative, or at any special request of Mr. Shannon?—A. That is rather hard to answer. I know I was supposed to supply everything that came up, and after telling Mr. Shannon that Mr. Curran lived there, naturally he kept asking for more information about it; but as far as who told the first, I couldn't say.

Q. He asked for more information?—A. He did.

Q. Did you make any report to Mr. Shannon on any of the personal affairs of the individuals in the Missouri-Kansas Co.?—A. Yes; Mr. Shannon first asked me about Mr. Parish's boat, and where he was living in New York, where he lived when he was in New York, and whether he had any money, and things of that kind.

Q. You remember any conversation with Mr. Shannon concerning Mr. Montgomery, of Bartlesville, Okla.?—A. If I recall right, Mr. Shannon told Mr. Montgomery that I was working for him in Chicago, and Mr. Montgomery was very emphatic in his English, and he said to get me out of there, and I know, on another occasion, Mr. Montgomery was in Chicago, and Mr. Shannon suggested that I call Mr. Montgomery, and after he apparently talked to Mr. Montgomery, it was decided that I had better not call him.

Q. And who was Mr. Montgomery?—A. Well, Mr. Montgomery is head of the Empire Gas & Fuel Co., at Bartlesville, Okla. That is a Cities Service Co.

Q. Did Mr. Shannon ever express to you any doubt toward Mr. Parish, personally?—A. I don't quite understand.

Q. What I have in mind is a statement made in your affidavit.—A. About the "Leviathan"?

Q. No; this, down here [indicating].—A. Yes; it was the general consensus of opinion that he was going to the penitentiary.

Q. Is that the whole of the statement that he made to you?—A. Well, they said they would put him in the penitentiary. I do not know whether that was just his idea, or anything was back of it. I don't know.

Q. Do you know how far the negotiations got with the United, with reference to that Detroit extension?—A. Well, I didn't get to read the negotiations. I got my information from Miss Dunlap, at the time, and I know that they were torn up; they were not left in the office, but that was just—

Q. Do you know what, if anything, happened to prevent the confirmation of that deal with the United?—A. No, sir.

Q. You did not report anything of that sort to Mr. Shannon, on the United?—A. I reported to him that they were negotiating with the United to build this line, to finance it.

Q. Merely that, or to give him some details about the negotiations?—A. This is in the statement?

Q. I believe it is.—A. (reading): "I told him they expected to build a line to Detroit, Mich., and would connect with the present Illinois line of Panhandle Eastern, and then be extended into Indiana and into Ohio, touching Cleveland and several other small towns."

Q. In getting your final payment from Mr. Shannon, did you sign any form of release?—A. Yes, sir.

Q. Release to whom?—A. If I recall right, it was, "I do hereby release Cities Service Co. and all its subsidiaries, Henry L. Doherty, and Henry L. Doherty & Co., Gas Service Co.," named, I think, several of them, "from any obligation."

Q. "Any claims"?—A. "Claims."

Q. Of all sorts?—A. Yes, sir.

Q. About when was that release executed?—A. That was in May of 1932.

Q. And was that the time that you got the balance that was due you?—A. Yes, sir.

Q. Was the signing of the release made a condition of your obtaining that amount that was due you?—A. It was not stated in the release. They just stated that I had no further claim on them.

Q. From your negotiations with Mr. Shannon on the matter—I don't mean what was in the form of the release, but did you understand that you had to sign the release in order to get the money that was due you?—A. No. He just handed me the money and gave me some extra money, and he said, "Now, let us call it—finish this thing up and iron it out." He said, "You sign here, and here is the money."

Q. There had been some delay in their payment, had there not?—A. Yes. It was about \$500. Some extra money, too, you know.

Q. What was the reason for the delay?—A. Well, it had not been placed in the bank, I think. Mr. Shannon got worried about the situation.

Mr. WOODEN. All right, Miss Walker. I thank you very much indeed for this patient, detailed description you have given us. If there are any questions from any other sources, I would be glad to put them to Miss Walker.

Examiner HUDSON. There appear to be none, Mr. Wooden.

Mr. WOODEN. All right.

(Witness excused.)

Mr. WOODEN. Might we adjourn now?

Examiner HUDSON. We will adjourn until tomorrow at 9:30.

(Thereupon, at 4:30 p. m., Friday, November 15, 1935, the hearing in the above-entitled matter adjourned.)

HOLDING CORPORATIONS CONTINUE COMPLAINTS AGAINST "COMPETITIVE SITUATIONS"

"TRIPLE-PASS" FROM CASTER TO MUNROE TO GOSSLER TO HILLMAN IS ATTEMPTED IN EFFORT TO PROTECT KANSAS CITY MARKET FROM INVASION, LETTERS SHOW

Exhibit 6482 (F. T. C. Report No. 83, Pages 1022-3)

J. H. HILLMAN, Jr.,
First National Bank Building, Pittsburgh, Pa.

Mr. FRANK P. PARISH,
Chicago, Ill.

DEAR MR. PARISH: I enclose herewith copy of letter dated April 28 from Mr. Gossler, together with copy of letter he enclosed from Judge Caster, of the Henry L. Doherty Co., dated April 27. Mr. Gossler undoubtedly is absolutely right in the position he has taken, and I would be pleased to have you advise me if there are any extenuating circumstances that could excuse such a situation. Such a statement certainly does not help your relations or possibilities of future contact with either the Columbia people or the Doherty interest. It is most unpleasant to me to have a constant volley of these criticisms coming from different sources.

Yours very truly,

J. H. HILLMAN, Jr.

COLUMBIA GAS & ELECTRIC CORPORATION,
New York, April 28, 1931.

J. H. HILLMAN, Jr., Esq.,
Chairman of the Board, Peoples-Pittsburgh Trust Co., Pittsburgh, Pa.

DEAR MR. HILLMAN: I am enclosing herewith a copy of a letter from Judge Caster, of Henry L. Doherty and the Cities Service Co.

Ever since we first came in contact with Mr. Parish we have been in receipt of numerous complaints that he has used his association, indirect as it may be, with the Columbia interests, to disturb situations by threatening raids or creating competitive situations on territory legitimately occupied by other people, and which communities have been well and adequately served by existing companies.

Up to the present time, we have patiently refrained from making a public statement as to exactly what our relations are with Mr. Parish. We have complained to him on numerous occasions of the use by him or his employees of the Columbia Company's name to further the interests of others than the Columbia Co.

Yours very truly,

PHILIP G. GOSSLER.

HENRY L. DOHERTY & Co.,
New York, N. Y., April 27, 1931.

Mr. CHARLES A. MUNROE,
New York, N. Y.

DEAR MR. MUNROE: I hand you herewith a clipping from the Kansas City Star under date of April 23, which is self-explanatory. You can see that there is considerable agitation about this matter.

Representatives of the Star say that Mr. Parish told them after the Columbia had purchased an interest in the Panhandle-Eastern that it was inconceivable that that line should go so close to Kansas City and not to strive to get a part of the

business. They published a statement to that effect in their paper, and so far as I know, no denial or counterstatement on the part of any representative of the Panhandle-Eastern has every been made.

Yours very truly,

H. O. CASTER.

PANHANDLE EASTERN REFUSES TO SELL CHEAP GAS IN "SOMEBODY ELSE'S TERRITORY"

PRODUCER'S EFFORTS TO SUPPLY KANSAS AND MISSOURI CITIES THWARTED; HE IS URGED TO SELL PROPERTY "BECAUSE YOU WILL NEVER MAKE A DIME OUT OF IT"

[Digest of Testimony from F. T. C. Report No. 83, Pages 27 to 43]

An Examination by the Federal Trade Commission, November 15, 1935. W. M. McKnab was thereupon called as a witness for the Commission, and, having been first duly sworn, testified as follows:

Direct examination by Mr. WOODEN:

Q. Will you state your business, Mr. McKnab?—A. Oil and gas business.

Q. And where do you live?—A. Winfield, Kans.

Q. And in what section are you engaged in the oil and gas business?—A. Well, around Winfield, and out in western Kansas, Hugoton, and Stevens, in Morton County, different places.

Q. Is most of your business oil, or mostly gas, or which?—A. Well, right now, it is mostly gas. I have got some oil.

Q. How long have you been engaged in the oil and gas business?—A. Oh, about 30, 35 years, longer.

Q. What is the amount of open flow of gas which you have available from those wells that you have described?—A. Well, we differ a little bit in opinion. They say now, the Panhandle Eastern do, that I have got a little less than 100 million open flow per day. Of course, I think I have got more than that. I did have 120 million, and they have not taken a lot out of there, so I don't know why there should be that much less. The wells around in that same territory, right around my wells, which belong to the Argus Production Co., have not gone down that much, so I don't know; but what they claim now is a little less than 100 million.

Q. Did you ever discuss with the Panhandle officials this matter of their transporting gas for the North American people, and not taking yours?—A. Oh, I have gone after the Panhandle to sell more gas, and they said they didn't have a market, and this line here [indicating], when that line was built, they made a deal with the North American to carry that gas, and Mr. Bay wrote me a letter and said they were making that deal to carry that gas, and when that interfered with our gas market, he discontinued, that it was a 30-day matter, at a time. They could discontinue, I think, within 30 days, or a short time.

Q. Did you make your investments in this acreage, and the wells, and all that, on the basis of some understanding that a market outlet would be provided for your gas?—A. We drilled these wells on the assumption that there would be a big market.

Q. Well, was that only as assumption?—A. Well, they said they had a market.

Q. Said they already had a market?—A. Said they already had the market; then they went ahead and drilled the wells, and they did have some markets.

Q. What did you know they had?—A. Well, I say they did have.

Q. You saw the contract?—A. They had some contracts there, that they said were contracts, that they later canceled or turned over to somebody else, up through Missouri and Illinois, whoever they were; and they never did serve them.

Q. You say "later." Do you know how much later?—A. I don't know how much later it was but then I know when I went after them, to Bert Bay, why he did not sell gas, he said, "We have got no market."

Q. Can you say whether that was before or after the change of management?—

A. That was after the change of management.

Q. When Mr. Bay said they had no market, what did you do about it?

A. Well, I tried to find a market.

Q. Did you tell Mr. Bay you were going to?—A. Yes; I told Mr. Bay the franchise up at Newton, the Empire, had run out. The Empire had that franchise there, and it had run out, and they were operating without a franchise; the people in Newton were hollering for gas. The Empire line runs along within about 2½ miles of the town of Newton.

Q. How close did the Panhandle run to it?—A. Well, I mean the Panhandle.
 Q. You said the Empire.—A. Well, I meant the Panhandle; and I talked with those fellows up there, and they said they wanted gas, and said they would give me a franchise.

Q. You mean the fellows in Newton?—A. Well, the commissioners.

Q. The town officers?—A. Yes, sir; the mayor and the commissioners of Newton.

Q. Well, did you get a franchise?—A. Yes, sir; and I went to Mr. Bay before I got this franchise, and asked him if he would sell me gas there. He said, "Yes; we will sell you gas." So I went ahead and got the franchise.

Q. And then what did you do?—A. Well, of course, the Empire was putting up quite a big fight on it.

Q. Well, how do you know that? Just don't get ahead of the story.—A. That is part of the story.

Q. Well, I know it is part of it, but don't get ahead of it.—A. So Mr. Bay called me and said for me to meet him at Liberal, he wanted to see me; so I met him at Liberal, and we talked about the franchise, and he said, "Well, Bill, you will have to forget it." He says, "I cannot furnish you this gas."

Q. The Newton franchise?—A. Yes, sir. He said, "You will have to forget that Newton franchise. I cannot furnish it to you."

Q. Did he say why?—A. Yes. He said that his people back east did not—it was infringing on the Empire's territory, and they did not want to do that, and I would just have to forget it.

Q. What explanation did you make to the people in Newton?—A. Well, I didn't make any, just told them I could not get the gas; that is all.

Q. Do you understand it to be characteristic of that territory that gas from your holdings could be drained out through those other wells?—A. Certainly it could, if you would take enough of it, sure.

Q. The Argus Co., was that the gas from their production that was being transported through the Panhandle Eastern line?—A. Yes, sir. Yes, sir.

Q. And some of it coming from under your acreage?—A. Well, I suppose it was. The way we think that thing is out there, it is just a great big pool of gas. You get to the top of that sand, about the same depth, as far as the taking off, the elevation, the top elevation, you get it about 2,500 feet, and it is the same formation, all over. You can go all over that country out there, for a hundred miles, up and down, north and south, through there, and you get the same formation; so my theory is that that is one great big pool of gas.

Q. That is the best information of geologists and engineers, too, is it not?—A. Yes, sir. Yes, sir.

Q. As I understand it, now, the situation there is that you have got a heavy investment in wells and acreage; the gas is being drained out from under your acreage?—A. Yes, sir.

Q. By other producers?—A. Yes, sir.

Q. And their gas is being transported to market through the Panhandle Eastern line?—A. Yes, sir.

Q. And, along with it, some of the gas that is drained from your acreage; is that right?—A. Well, yes; I would think so.

Q. Can you not find an outlet for your gas?—A. No, sir.

Q. After you tried your hand at that Newton proposition, did you make any further efforts to get a market?—A. The engineer of Emporia came down to see me, and the mayor called me up and wanted to know if I could get any gas out of the Panhandle Eastern line; they wanted to buy gas; so I took that up with Mr. Bay. Didn't make much effort, there, at Emporia, but I talked to Bert about it, and he says I couldn't do it. He says, "They have been talking to us about it, once before"; but, he says, "we cannot do that."

Q. When he said "they," he meant the town officials?—A. Emporia.

Q. The town officials?—A. Yes, sir; the town officials. So that is all I did there.

Q. Did he say, in that connection, why he could not do that?—A. Yes.

Q. Why?—A. He said it was raiding somebody else's territory, and it was a practice that they would not do.

Q. Whose territory was it?—A. Cities Service.

Q. Well, any other towns in Kansas that you made an effort to get a market for your gas?—A. No, sir.

Q. What other towns anywhere did you make an effort to get a market for the gas?—A. Well, I went over to St. Louis.

Q. How did you happen to go over there?—A. Well, sir, I got a letter from the gas committee of St. Louis, asking me to come there and talk about natural gas to them, and I did.

Q. Well, you went and talked to them, I understand.—A. Yes, sir; I went.

Q. Whom did you deal with there?—A. Well, I dealt with the gas committee, Mr. Hay and—oh, I don't know—Mr. Forest Ferris, Jr., at that time was in the law department there.

Q. Did you find that those St. Louis officials were in the market for natural gas?—A. Yes. They said they wanted natural gas, said they had sent out registered letters to all the gas companies, and that nobody had appeared there, so I talked to them, made a proposition.

Q. Did you make a proposition?—A. Yes, sir; for a franchise to furnish natural gas and asked for a certificate of convenience at Jefferson City from the public service commission.

Q. Were you doing all this as an individual, or were you acting on behalf of some company or corporation?—A. No. We were acting on behalf of the McKnab Oil & Gas Co., and that is the way we asked for our franchise, the way we asked for the certificate of convenience.

Q. Did you get your certificate of convenience?—A. No, sir; have not yet.

Q. Was it definitely turned down?—A. No, sir.

Q. Just not decided?—A. It has not been decided.

Q. And how long ago is that?—A. Oh, that is about a year ago. It will be a little more, I expect, that we asked for that.

Q. What plan did you have in mind for getting natural gas into St. Louis?—A. Well, I had in mind getting it out of the Panhandle Eastern line at Bowling Green.

Q. How far from St. Louis is that?—A. About 68 or 70 miles.

Q. How were you going to bridge that gap in there, between?—A. Going to build a line between St. Louis and Bowling Green.

Q. Did you seek any assistance from other parties in the project of building that line?—A. Yes, sir.

Q. Who?—A. Well, I first went to Mr. Bay, asked him about it, said that there was a market over there, and asked him if he would build that line down there, to St. Louis, and furnish that gas. He said he didn't have any money, couldn't build it. Then I asked him if he would sell gas if I would find somebody with the money to build the line; if he would sell the gas to St. Louis. He said no, he would not.

Q. Did he say why?—A. He said his people would not consider it, because it was infringing on the Mississippi River Fuel's territory, and he would not do it.

Q. Did you have any dealings with the Phillips Petroleum Co. in connection with that matter?—A. Yes, sir.

Q. What were those dealings?—A. Well, the Phillips Petroleum Co. came up to Winfield and said, "I understand you are getting a franchise to St. Louis." I said, "Well, I don't know, I am trying to." "Well," they said, "we would like to go in with you. We have got a lot of acreage out at Hugoton, and we have some very friendly connections with the Columbia people, we believe we can get them to haul that gas." Well, of course, we immediately got busy and tried to make a deal. They came up to St. Louis, talked to the authorities in St. Louis, themselves, and acted as though they were very much interested in financing and building that line.

Q. Connecting the Panhandle Eastern with St. Louis?—A. Connecting from Bowling Green to St. Louis.

Q. Did they go into it far enough to make any investment or advance in a financial way?—A. No. They went into it this far. My properties were all mortgaged, first for the \$54,000 to pay the Panhandle Eastern and then for money to pay the taxes, and one thing and another, and I was in a pretty bad spot. I was looking for somebody to come in there and bail me out, so I could exist; so they wrote the bank, there, and said, "If you will just sit still, we are getting in behind McKnab, we are going to take care of those properties, we are going to go in and help furnish gas to St. Louis." However, they did not pay any of my bills.

(Thereupon, a group of letters was marked for identification "Commission's Exhibit 6471.")

By Mr. WOODEN:

Q. I show you three papers, marked "Exhibit 6471," for identification, purporting to be copies of correspondence passing between you and the Phillips

Petroleum Co., and one of them is a copy of a letter from the Phillips Petroleum Co. to the Natural Gas Committee of the City of St. Louis. I will ask you if those are authentic copies of correspondence that you had with the Phillips Petroleum Co.?—A. Yes, sir.

Q. Now, with reference to the one, consisting of the letter to the Natural Gas Committee, from the Phillips Petroleum Co., did you ever have that? Was that sent to you, a copy of it, by the Phillips Petroleum Co.?—A. Which one is that, now?

Q. The last one.—A. This last one, here? I don't know whether I got a copy of that or not. I cannot read that, it runs together pretty, bad. I cannot see it.

Q. Well, it is merely to the effect that they were notifying the committee that they were no longer backing you in connection with this proposition.—A. Yes; that is right.

Q. My question was, whether you received a copy of that from the Phillips Petroleum Co. people?—A. Yes; yes.

Mr. WOODEN. I offer those papers for the record, Your Honor.

Examiner HUDSON. They will be received and made a part of the record.

(Thereupon the group of letters, heretofore marked for identification "Commission's Exhibit 6471," was received in evidence.)

By Mr. WOODEN:

Q. Briefly stated, that correspondence consists of notification to you and the president of the First National Bank of Winfield, and to the committee of St. Louis, of the discontinuance of Phillips Petroleum Co.'s backing of your enterprise toward connecting up St. Louis with the Panhandle Eastern line?—A. Yes, sir.

Q. Did you ever have any contacts with any officials of the Phillips Petroleum Co. with regard to their reasons for discontinuing their negotiations with you?—A. No, sir.

Q. Does the Phillips Petroleum Co. have gas acreage of its own down in that Hugoton field?—A. Yes, sir.

Q. Do you have any idea how large an acreage that is?—A. They had about 25,000 acres at that time.

Q. How near is it to your holdings?—A. It is scattered around all through the blocks, all through the field.

Q. From your negotiations with them on this matter, were they interested in getting an outlet for their own gas in that territory?—A. Yes, sir; they said they were.

Mr. WOODEN. Your Honor, in the report of the St. Louis aldermanic committee which was put in the record yesterday, there are some statements made regarding this matter of the Phillips Petroleum Co., the discontinuance of their project, and the reasons therefor, but we will have a witness here, later, who will give direct testimony on that.

By Mr. WOODEN:

Q. Well, after this deal fell through with the Phillips Petroleum Co., what further did you do toward getting an entry into St. Louis?—A. Well, I went up to Chicago and made a contact with a man by the name of Mr. Bills, Mr. Benjamin F. Bills, to finance this line.

Q. Who is he?—A. Well, he is a broker, a fellow that raises money, a real estate man, and, oh, I don't know; he does a lot of things up there, and he interested a man, the western partner of Hallgarden Co., of New York.

Q. How far did those negotiations progress?—A. Well, they went far enough that they came down to St. Louis and told the public service commission that they were ready to finance this thing when the franchise was granted and the certificate of convenience was granted.

Q. And what was the thing to be financed?—A. The line from Bowling Green to St. Louis, \$4,500,000.

Q. Did they get in contact with the aldermanic commission, so far as you know?—A. Yes, sir.

Q. Were you with them when they did so?—A. I was with them when they talked to Mr. Hay and the mayor and two of the board of public service fellows, in St. Louis.

Q. And what did they have to say to those officials?—A. They told them that they were—this man Emerick, I believe his name is, from Chicago, who claims he is the western partner of Hallgarden & Co., said, "We are here to finance this thing," and Mr. Hay or somebody asked if it was a stock-selling scheme. He said no. If it was we would not be here. He said, "We have got the money and are ready to finance it when you people grant the proper authorities."

Q. How long after the Phillips Petroleum proposition fell through was this?—A. Oh, it was probably 4 or 5 months, 6—6 months, maybe longer.

Q. What year?—A. Well, they just made this appearance down there before this committee, about 2 or 3 months ago; but, of course, we had been negotiating with them quite a while. Mr. Bills had been in this thing for about a year.

Q. Well, it looked as if you had everything fixed up, finally, did it?—A. Well, if we got the franchise and got the certificate of convenience, they said they had the money; and, of course, I believed they did.

Q. Did Bills' people and the Hallgarden people continue to stand ready on that proposition?—A. They say they are; yes, sir; yes, sir.

Q. Did you ever get a franchise for it?—A. No, sir.

Q. From the city?—A. No, sir.

Q. Did you ever go into a proposition of whether a franchise could be granted by the city?—A. Yes, sir.

Q. In view of the Laclede Co.'s position there?—A. Yes, sir. Yes, sir; our attorneys think they can.

Q. In other words, their opinion is the Laclede franchise is not an exclusive one?—A. No, sir; it is not an exclusive one.

Q. Did you ever carry your contacts with the Panhandle Eastern officials to anyone above Mr. Bay?—A. No, sir.

Q. And what was his position?—A. Position on what?

Q. I mean with the company?—A. President of the Panhandle Eastern.

Q. Was he actively managing the affairs of the company?—A. Yes, sir.

Q. Did you ever have any contacts with Mr. L. E. Fischer, of the North American Company, with reference to your situation down there in Kansas?—

A. Yes. I have had quite a little contact with Mr. Fischer; had a lawsuit with him.

Q. Was that over something involving the gas down there?—A. Involving gas; going into that Argus line.

Q. Is that that 8-inch line you refer to?—A. Yes, sir. Yes, sir.

Q. That runs to Dodge City?—A. Dodge City and Garden City, and different places.

Q. Did you ever have any conversation with Mr. Fischer, in which he discussed with you the condition in which your business was placed by the factors that we have been discussing here?—A. Mr. Fischer called—Mr. Brock, his man at Salina, Kans., called me over at McPherson. I was drilling wells over there, and he asked Brock to bring me over to Salina. He was flying from Kansas City down to Salina and wanted to see me. I asked him what he wanted to see me for. "Well," he said, "I think he wants to make a trade with you." So I drove over to Salina and met Lew Fischer, went up in his office, talked a little while, and he said, "How are you getting along with the gas business?" I said, "Oh, I am just sitting here, waiting, that is all." "Well," he says, "I will tell you," he says, "I think if anybody will give you anything out of that, out there, you had better take it and get out, because you will never make a dime out of it." I made the remark, "That's what you say. Is that all you want of me? If it is, I will go." And I walked away and left him.

Q. You mean to say that is all you talked about?—A. That is all we talked about, and that was all that was said in that meeting. I drove about 40 miles to listen to that.

Q. What about this man Brock? Was he there then?—A. No.

Q. Did you have another conversation with him?—A. No. Brock was the man who came and got me to go over to meet Lew Fischer at Salina.

Q. Did Brock have anything to say?—A. No. Brock didn't have anything to say; nobody had anything to say, but Lew Fischer.

Q. Do you have any knowledge or information about any attempt on anybody's part to interfere with your financing through Mr. Bills?—A. Oh, no. I don't have any knowledge of that, only Mr. Bills said that he was being blocked, every bank he went to, he was being blocked; but, of course, that was only hearsay. He did not say who, or didn't know who.

Q. When was that that Mr. Bills made such statements to you?—A. That was about a year ago.

Q. But, subsequent thereto, he still was saying he would go through with it?—A. Yes, says he can.

Q. Were there any instances where your contracts for gas acreages were cancelled because you were unable to provide an outlet for the gas?—A. We have a lawsuit on one well out there now; Mr. Hallock brought a suit against us to cancel one lease that we have, with the well on there, because we haven't marketed the gas.

Q. How much acreage is involved there?—A. Three hundred and twenty acres.

Q. In connection with your efforts to obtain a franchise in Newton, was there any referendum vote on your franchise?—A. Yes, sir.

Q. What was the result of that vote?—A. Well, the result of that vote was that, after Mr. Bay told me that I would have to—this referendum vote was after Mr. Bay told me that I could not get any gas, so I just dropped it and let it go.

Q. And did you let it be known that you had had that difficulty?—A. I told Mr. Houston, who was the acting mayor, that I could not get the gas.

Q. With Mr. Bay?—A. Yes, sir.

Q. As I understand it, in other words, the people, in voting on the franchise, knew about your difficulties in getting gas?—A. Yes, sir; yes, sir. I didn't make any effort to get the franchise after I was notified I couldn't get the gas—that is, to win the election.

Q. I was asked to ask you whether the franchise was voted down by eight to one.—A. Yes, it was voted down by eight to one, because there was no effort to keep it from it.

Q. Under the circumstances you have described?—A. The Empire was very active in these, trying to vote it down, and they were very active to stop the commissioners from giving it to me; but as long as I was sure I could get gas, why, I was told, "You can handle it," but when I knew I couldn't get any gas, why, then there was not any use to put on a fight; and the people knew it.

Q. Now, is there anything else, Mr. McNab, that you think of in connection with this whole situation, that I have not covered, and that you have not covered?—A. No, sir; I do not believe there is.

Examiner HUDSON. You may put any statement in the record that occurs to you, that you would like to make.

The WITNESS. I do not believe there is any statement there that I would like to make.

Mr. WOODEN. All right, then; we thank you very much for this statement. It has been very helpful to us. Of course, I should ask if there are any questions that anybody wishes to ask.

Examiner HUDSON. There appears to be no more.

Mr. WOODEN. All right. Thank you, indeed.

(Witness excused.)

COLUMBIA'S GOSSLER RESENTS "AGGRESSION" IN RACE FOR INDIANAPOLIS MARKET

WARNS FINANCIER OF RIVAL PIPE LINE THAT IF EFFORTS ARE PURSUED, "WE SHOULD HAVE TO RESIST TO THE FULL EXTENT OF OUR RESOURCES AND INGENUITY"

Exhibit 6481 (F. T. C. Report No. 83, Page 1019)

Office of the President.

COLUMBIA GAS & ELECTRIC CORPORATION,
New York, April 13, 1931.

J. H. HILLMAN, Jr., Esq.,

Chairman of the Board, Peoples-Pittsburgh Trust Co., Pittsburgh, Pa.

DEAR MR. HILLMAN: When you and Mr. Phillips, of Dillon, Read & Co., were in my office a fortnight ago, discussing your financing of the Panhandle Eastern Corporation, you expressed the desire to co-operate with us fully in the completion of the Panhandle Eastern Pipe Line and its related projects harmoniously and for the benefit of all concerned.

I described to you the position of the Columbia interests with regard to the termination of the Panhandle Eastern pipe line at the Indiana-Illinois state line; the plans of Columbia to make a connection between that point and our gas systems in Ohio and other eastern states, which connection would serve the Indianapolis market; and our agreement with the interests with whom you are now associated as to the disposal of the gas they are to take at the eastern end of the Panhandle line, so that there would be no conflict between us.

We are now in receipt of clippings from the Indianapolis Star (morning paper) and the Indianapolis News (evening paper), of Wednesday, April 8, announcing that on the preceding day the mayor and other representatives of the city of Indianapolis had met with representatives of the Kentucky Natural Gas Co., at

which meeting there had been discussion of the possibility of the latter company building a pipe line to bring natural gas to Indianapolis.

We can only construe this as an act of aggression on the part of your associates against the best interests of Columbia which, if pursued, we should have to resist to the full extent of our resources and ingenuity.

I had felt reassured from our last conversation with you that we could look forward to an entire discontinuance of such acts, unfriendly to us, by the interests with which you are now associated, and I trust that you are still of the same point of view and can now assure me that there will be no further continuance of this proposal of resumption of such activities

Yours very truly,

PHILIP G. GOSSLER.

Exhibit 6424 (F. T. C. Report No. 83, Pages 1010-11-12)

COLUMBIA GAS & ELECTRIC CORPORATION

61 BROADWAY, NEW YORK

APRIL 27, 1931.

J. H. HILLMAN, Jr., Esq.,

*Chairman of the Board, Peoples-Pittsburgh Trust Company,
Pittsburgh, Pennsylvania.*

DEAR MR. HILLMAN: Under date of April 13th, I wrote you a letter calling to your attention news items appearing in the Indianapolis papers under date of Wednesday, April 8th, relative to a proposition on the part of the Kentucky Natural Gas Company to extend its pipe lines into the Indianapolis territory. You have also, no doubt, had called to your attention or are conversant with the articles in the Indianapolis papers under date of April 24th and 25th, relative to the same matter, which show that it is being pressed.

As you have been advised by Mr. Pew and others of our organization, it has long been our intention to extend, in order to supply Indianapolis and adjacent territory our natural gas pipe lines which have been constructed and in operation for many years, reaching to within a comparatively few miles of Indianapolis. We have long been in negotiations with the gas companies now operating in Indianapolis and have only delayed the extension of our lines to reach that market in order to comply with the request of those interested in the local gas companies, so that no further confusion might arise while they were endeavoring to improve the unsettled gas situation there. We advised your associates of this when they first came to us asking for our assistance in completing a pipe line from Texas to the eastern markets. When, later, we decided that we would render such assistance to them, it was with the distinct and definite understanding that our assistance would be extended along lines that would be constructive and mutually beneficial to all parties.

Under the best conditions which prevailed last year, we were of the opinion that it would be impossible to make the Panhandle Eastern Pipe Line a profitable undertaking without a very large volume of business, and that to get this large volume it would be necessary for the companies in which we are interested to go beyond the ordinary limits of assistance for the first few years of operation. To this end we intended, and so advised your associates, that these companies would supply the Indianapolis market with gas which we would take from the Panhandle Eastern Pipe Line, instead of with gas from our own gas fields in Ohio, West Virginia, and Kentucky, and with the understanding that the gas which the Missouri-Kansas Pipe Line interests would take from the Panhandle Eastern Pipe Line Company would be used for the purpose of developing an additional market to the southward through supplying Nashville and other territory in that direction.

As differentiated from the attitude of our interests in their willingness to have a part of our present and potential market supplied by this new source of gas, the attitude of the Missouri-Kansas interests is one of cramping the market to be reached by the Panhandle Eastern Pipe Line Company instead of broadening it.

We consider this proposed move on the part of the Missouri-Kansas Pipe Line Company interests to enter the Indianapolis market as injurious to the common interests of you, ourselves, and the Missouri-Kansas Pipe Line Company in the Panhandle Eastern Pipe Line Company, as well as injurious to the Missouri-Kansas Pipe Line Company's own future.

It has been our experience in common with most other utility companies that it is economically unwise and undesirable to provide duplicate and competing facili-

ties for the service of such a market as the Indianapolis territory in this case. The result is temporary financial injury to both companies building those facilities, which injury may become more than temporary to either of them not in a strong financial condition. Furthermore, it has been universally proven to be against the public interest, in that sooner or later the public is required to pay rates which will support the duplicate investment, instead of only the single investment necessary for their proper and adequate service.

As you are only too fully aware, there is no line now in operation, of the length and magnitude of the proposed Panhandle Eastern Line, which is complete and an established financial success, and the financial success of the Panhandle line is by no means assured. Since the first estimates of the financial operation of this line were made, industrial and financial conditions have very materially changed, so that today we are faced with a most difficult problem to sell large volumes of gas in competition with the very low existing prices of oil and coal.

Our recent surveys have emphasized the difficulties that we will encounter in rapidly building up a large business on the Panhandle Eastern Line, and in view of this very difficult competition with other fuels, we are now very much concerned as to whether or not the Panhandle Eastern Line can earn its interest charges for some time to come. This doubt was expressed to you upon the occasion of our first interview in my office.

In response to my letter to you under date of April 13th, you were courteous enough to pay me a visit and talk this subject over. You will recall that at that time, in connection with the discussion of the financial condition of the Missouri-Kansas Pipe Line interests and the possibility of their becoming overextended, I said that it would be to the mutual advantage of all concerned to so arrange matters as to prevent, if possible, Mr. Parish or anybody else getting into financial difficulties; that we are most desirous of not being identified, either directly or indirectly, with any project that was not preeminently successful; that we proposed to do everything we could to better the interests of any project with which we were associated, and would continue in that endeavor, but that in our opinion it would be very difficult to have the Panhandle Eastern Pipe Line Company be successful financially without full and complete co-operation on the part of all interested.

In response to your suggestion that we first use the money which Panhandle Corporation has provided for the Panhandle Eastern Pipe Line, before we put up our share, Mr. Reynolds advises me, after consulting our legal advisers, that, while under ordinary business relations we would be glad to comply with your suggestion, having in mind our past experiences in this situation, we feel that it would be very unsafe to in any manner alter any of the terms or conditions of the existing agreements.

Yours very truly,

PHILIP G. GOSSLER.

DESTRUCTIVE INTENT CHARGED TO COLUMBIA BY PANHANDLE EASTERN PARTNER

UNLAWFUL AGGRESSION AND CONSPIRACY ALLEGED BY MISSOURI-KANSAS PIPE LINE COMPANY; DISPUTED ACT "PUNISHABLE BY INDICTMENT," ATTORNEY WARNED IN 1931

Exhibit 6434 (F. T. C. Report No. 82, Pages 916 to 927)

MARCH 12, 1934.

MR. PHILIP G. GOSSLER, MR. GEORGE H. HOWARD,
AND MR. FRANK P. PARISH,
Voting trustees, Panhandle Eastern Pipe Line Company.

GENTLEMEN: In view of the critical situation to which the Panhandle Eastern Pipe Line Company has been reduced, I wish the minutes of this meeting to include my comments with respect to the activities of its management, directors, and stockholders.

For the purpose of insuring accuracy in the recording of these comments, I am handing the Secretary a signed, typewritten copy which I desire to have read at this meeting.

Having previously and repeatedly charged the Columbia Gas & Electric Corporation, Mr. Gossler, Mr. Munroe, Mr. Gregory, and Mr. Reynolds with bad faith in the dispatch and performance of their duties to the Panhandle Eastern Pipe Line Company and deliberately bringing about the present difficulties of that company, I wish to review for the purpose of this record the fact that Columbia Oil & Gasoline Corporation purchased the \$20,000,000 First Mortgage Gold

Bonds of Panhandle Eastern Pipe Line Company from the National City Company, who had previously purchased and paid for them. In view of the fact that Columbia Gas & Electric Corporation is a public utility holding company and not a banking or investment concern, I cannot do other than construe the purchase of these bonds as having been made for the purpose of placing Columbia Gas & Electric Corporation in position to take the assets of Panhandle Eastern Pipe Line Company by foreclosure or to force its partner, Missouri-Kansas Pipe Line Company, to sacrifice its interest in Panhandle Eastern Pipe Line Company in accordance with the terms desired by Columbia.

The conduct of Columbia and the above mentioned directors and officers, subsequent to this act, is consistent with the obvious intent of destruction, which I have repeatedly charged. Further evidence of bad faith on the part of Columbia was revealed to me upon my receipt of copies of telegrams from Henry L. Doherty to Charles E. Mitchell, in which Mr. Doherty discloses that Mr. Gossler and Mr. George Crawford had entered into an agreement with him conspiring to destroy Missouri-Kansas Pipe Line Company, which was in itself a great shock to me.

For the purpose of this record, I wish to point out that on every occasion the conduct of Columbia and these officers has been definitely destructive and antagonistic to its partner, Missouri-Kansas.

The provisions in the contract of September 17, 1930, required by Columbia, placed Columbia in a position to practically wipe out its partner's (Missouri-Kansas') interest in Panhandle Eastern Pipe Line Company, in the event of their inability to provide the approximately \$6,000,000 which they had agreed to provide.

In this connection, Columbia and its officers went to great lengths to block Missouri-Kansas' efforts to finance this requirement, deliberately informing Missouri-Kansas' bankers (Hillman and Dillon, Read & Co.) to the effect that Panhandle Eastern Pipe Line Company was an ill-considered project, unsound and not likely to pay its fixed charges; that the acquisition of a 50 percent interest in this Company was not with a view to making a sound and desired investment but to avoid the possibility of a raid on their territory.

The conduct and attitude of Mr. Munroe and Mr. Gossler, in particular, in regard to this financing, was anything but that of a true partner and, to the contrary, was belligerent, antagonistic, and destructive.

Missouri-Kansas' subsequent success in securing this financing was in spite of this obstruction, which was carried to such extreme lengths as the insistence of Columbia officials upon the very terms of the Panhandle Eastern Notes, given for this financing, which terms were such as to have rendered these notes bastard in form. Had not these vicious demands of Columbia been overcome, Missouri-Kansas would have failed in this financing, as the form of these notes would have been such as to make them undesirable to Missouri-Kansas' bankers.

Further evidence of Columbia's bad faith in this matter lies in their insistence prior to my realization of the nefarious intent, that Mr. Fred Crawford be made President of Panhandle Eastern and that Mr. Reynolds be made Secretary.

The minutes of various Directors' Meetings which I attended, as drawn by Mr. Reynolds, did not properly record what in fact took place and was discussed. My objections and demands in this connection were so ignored as to render it essential for me to bring a court reporter to subsequent meetings, which was strenuously objected to.

In one of these meetings, Mr. Gossler offered a resolution with respect to employing the law firm of Hornblower, Miller & Garrison as counsel for Panhandle Eastern Pipe Line Company, which was objected to by me with the explanation that this particular firm was objectionable to me as I had had previous dealings with them and they were undesirable, and that there must be other law firms who would be acceptable to both Columbia and Missouri-Kansas.

Irrespective of my objections and the fact that the resolution was not put to a vote, the firm of Hornblower, Miller & Garrison was employed by the management.

At the request of Mr. Gossler, I discontinued my efforts to secure gas sales contracts in the City of Detroit, Mr. Gossler stating that he believe he was in better position to secure such a contract. When I raised the question at a meeting of the Board of Directors as to what progress Mr. Gossler was making in this connection, Mr. Gossler replied he was doing well. When I further questioned Mr. Gossler respecting his ideas as to the manner in which that market would be served; following the consummation of the contract, Mr. Gossler replied that a new corporation would be formed for this purpose, which corporation would purchase gas from Panhandle Eastern Pipe Line Company. Upon further questioning Mr. Gossler as to who would be the participants in and the stockholders of the new

corporation, Mr. Gossler replied that Columbia would have the largest participation, and that Standard Oil, Cities Service, Central Public Service, and O. D. Seagraves would also participate.

On my further question as to Missouri-Kansas' participation, Mr. Gossler violently declared that Missouri-Kansas had no right to participate; that anything beyond the Indiana-Illinois state line was out of their territory; that they had absolutely no right to participate in any gas business in the States of Indiana or Michigan, with the exception of Terre Haute.

To this date, so far as I am informed, nothing further has been accomplished with respect to securing additional markets for Panhandle gas, either directly or indirectly, in this territory, which is now practically entirely without natural gas service.

At a subsequent Directors' Meeting, when I offered a resolution that a contract between Panhandle Eastern and Columbia and a contract between Panhandle Eastern and Missouri-Kansas be drafted in accordance with the terms of the September 17, 1930, contract, which reads as follows:

"(c) That it will cause the Columbia Gas & Electric Corporation, either directly or through its present and/or future subsidiaries, to enter into gas purchase contracts with the Panhandle Company at or near the Indiana-Illinois state line upon substantially the following terms:

"(1) An excess capacity contract for the purchase up to 20,000,000 cubic feet of gas per day at 18 cents per M cubic feet, without limit as to time so long as the Panhandle Company has any excess capacity, provided, that if the Panhandle Company can sell all or any gas at a higher price it may reduce proportionately deliveries under this excess capacity contract.

"(2) Firm contract, commencing when the Panhandle Company gives notice to the Pipe Line Company and Columbia that it no longer has any excess capacity, for ten years and thereafter with right of cancellation by either party on one year's notice, at the rate of 26½ cents per M cubic feet, deliveries under such contract to be as required by Columbia and to aggregate for each year an amount producing at least a 70 percent annual load factor based on the maximum daily delivery, which maximum shall in no case exceed 30,000,000 cubic feet per day, and after the expiration of one year from the effective date of this firm contract such maximum day shall not exceed the maximum day established during said first year."

Mr. Munroe made the statement before this resolution was put to vote that it was his understanding that Missouri-Kansas was negotiating to sell gas in Indianapolis. Upon my statement that this was true Mr. Munroe violently declared that this was THEIR territory, in which Missouri-Kansas had no right. He finally stated that if Missouri-Kansas sold gas in Indianapolis, Indiana, regardless of where they got it, Missouri-Kansas could not have the 20,000,000 feet of gas under the terms of the September 17th contract.

Following this meeting a memorandum was made by Mr. Ralph Shaw, who also attended the meeting, reading as follows:

"MEMORANDUM MADE BY MR. RALPH SHAW in the presence of Mr. Frank P. Parish, Mr. Francis I. du Pont, Mr. William G. Maguire, and Mr. Ralph B. Mayo, immediately after the adjournment of the meeting of the Board of Directors of the Panhandle Eastern Pipe Line Company at 4:45 p. m. on the 26th day of May, 1931. Dictated by Mr. Ralph M. Shaw.

"There were present at the Panhandle Board Mr. Crawford; Mr. Gregory; Mr. Munroe; Mr. Howard; Mr. Maguire; Mr. Parish; Mr. Reynolds; Mr. du Pont; Mr. Seyffert; Mr. Bailey, of the Hornblower firm; Mr. Bay; Mr. Shaw, of Winston, Strawn & Shaw. Mr. Russell came in at 3:45 p. m., during the course of the meeting and was there during the latter part of it.

"Some desultory corporate business was discussed and voted upon; then approval was asked by Mr. Crawford of a proposed contract for the sale of gas to the City of Hannibal, Missouri, which required an expenditure of upwards of \$200,000. Mr. Parish objected on the ground that he had not seen the entire budget, that he had been told that former Director Gossler (Gossler had resigned at the beginning of the meeting and Reynolds had been elected in his place) told Mr. Hillman, one of his (Parish's) bankers, that the Panhandle Eastern would default in its interest; that he (Parish) knew that sufficient funds had been provided with which to pay interest during the construction period, and that he was unwilling to vote in favor of any disbursements which might disable the corporation from paying bond and note interest—at least until he had heard from the management. Thereupon, Mr. Reynolds said that he thought Mr. Gossler had not gone that far, but had said that they might not be able to pay their bond interest at some future time—say, 1933. Thereupon, the matter of the proposed contract was

deferred for further consideration and until Mr. Parish had an opportunity to study the entire budget.

"Mr. Parish then offered a resolution which directed, in effect, the officers of the Panhandle Company to enter into a formal contract with Missouri-Kansas Company and the Columbia Gas & Electric Company for the 20,000,000 feet daily of gas and 30,000,000 feet daily of gas as provided for in the contract between those two companies at the time when and as the condition upon which the Panhandle Company was organized. In this connection, Mr. Parish called attention to a conversation reported to him by Mr. Hillman to the effect that Gossler said that if the Panhandle Eastern did not sell the 30,000,000 feet of gas to the Columbia Gas & Electric as provided for in the above mentioned contract, the Panhandle Eastern would be still further embarrassed in the payment of bond interest, and he said he would like to hear from the management as to what they were doing about a contract for this gas. Thereupon, Mr. Reynolds said that he did not think such a resolution was necessary because such a contract was in the process of preparation.

"Before any action was taken upon the resolution, Mr. Crawford, President of the Company, read a paper to the Board in which, referring to the contract between the Columbia Gas & Electric and Missouri-Kansas Company, he set out the following:

"It was definitely agreed that the gas so taken by Columbia Gas & Electric Corporation was for supplying Indianapolis and northern Indiana territory, extending to Detroit and other points in Michigan and connecting with existing pipe lines in Ohio.

"It was likewise definitely agreed that the gas so taken by the Missouri-Kansas Pipe Line Company was only for the purpose of supplying gas to the Southwestern part of Indiana, through Terre Haute, and south to Nashville, Tennessee.

"The Panhandle Eastern Pipe Line Company hereby notifies both such contracting parties that it does not consider that either of them is entitled to gas under the said agreements, if the gas so supplied is to be used in violation of these agreements or for the purpose of interfering with the distribution of gas by the other of the contracting parties."

"Some discussion ensued and while the discussion was in progress, Mr. Russell came into the room.

"Mr. Gregory attempted to get Mr. Parish to say that he had made such an agreement verbally. Mr. Parish denied ever having made such agreement. Mr. Gregory tried to get Mr. Russell to agree that some such agreement had been made. Mr. Russell denied ever having heard such agreement made. He said that the retention in the deal by Missouri-Kansas Company of certain physical properties was done with a view to maintaining an operating situation for that Company, which could grow and expand, and that the agreement covering the sale of 20,000,000 feet of gas had been made to enable such operating situation to develop. Mr. Munroe then tried to get Mr. Maguire to agree that he had heard such an agreement made. Mr. Maguire denied ever having made such an agreement or having heard one made. Mr. Munroe reasserted that such an agreement had been made, and both he and Mr. Gregory stated that the contract with respect to the sale of the 20,000,000 feet of gas would not be carried out unless the Missouri-Kansas Company agreed that it (the Missouri-Kansas Company) would not sell any gas in Indianapolis irrespective of where they got it. By common consent, the entire subject was deferred for further consideration until the adjourned meeting on Friday, the 5th day of June. Munroe also said that the Panhandle Company would sell gas to Columbia and that they could sell it to Indianapolis and that it would not sell it to Missouri-Kansas Company so that it could sell it to Indianapolis. Mr. Parish thereupon requested the Secretary to make that a matter of record.

"During the course of the conversation, Mr. Howard asked Mr. Shaw, out of hearing of the others present, as to what he, Shaw, thought about it. Shaw thereupon responded that it was one of the most vicious things and terrible mistakes that he had ever heard of or seen businessmen make, that it was a fundamental principle of law that all of the terms of a contract which was reduced to writing were included in the writing, and that the contract for the sale of the 20,000,000 feet of gas had no limitations either as to the place where, or as to the time when, or as to the price at which the gas could or would be sold—that it was an enforceable contract. He also told Mr. Howard that the agreement asserted by Mr. Gregory, Mr. Munroe, and Mr. Crawford, if made, was void under the Sherman Anti-Trust Act, and if made public, would be punishable by indictment.

"Other conversation took place about other matters of no special significance."

A copy of this memorandum was given by Mr. Shaw to the legal counsel of Columbia, Cravath, de Gersdorff, Swaine & Wood, and to date no answer or comment has come to me from Columbia or any of its officers.

At a Board meeting September 15, 1931, an obvious attempt was made to cloud the minutes of a previous meeting by the inclusion of the following paragraph in the minutes, which paragraph was not read at the meeting when these minutes were read for approval:

"Mr. Munroe made it clear that neither he nor any other representative of the Columbia interests had ever said that Panhandle Eastern Pipe Line Company would not sell gas to Missouri-Kansas Pipe Line Company, but that he did say that representatives of the Columbia interests had expressed grave doubt as to the advisability of the Panhandle management committing the Panhandle line to deliver firm gas in the quantities and for the periods contemplated in the proposed contracts with the Columbia and Missouri-Kansas interests."

This resulted in my demand at the meeting, November 4, 1931, that the minutes record my comments with respect to this obvious intent to cloud the minutes, also Mr. Shaw's memorandum, as set forth, and Mr. Shaw's letter of October 2nd, 1931, reading as follows:

"DEAR MR. PARISH: Referring to your letter of September 29, and confirming what I said to you at our conference in Chicago on October 2nd, touching the minutes of the Panhandle Board meeting held on August 13, 1931:

"Of course I was not present at the meeting and therefore cannot possibly know what in fact took place there, but I direct your particular attention to the third page of the minutes, the third paragraph reading as follows:

"Mr. Munroe made it clear that neither he nor any other representative of the Columbia interests had ever said that Panhandle Eastern Pipe Line Company would not sell gas to Missouri-Kansas, but that he did say that representatives of the Columbia interests had expressed grave doubts as to the advisability of the Panhandle management committing the Panhandle line to deliver firm gas in the quantities and for the periods contemplated in the proposed contracts with the Columbia and Missouri-Kansas interests."

"With my knowledge of the past the statement is absurd.

"At the meeting of the Board held in New York on May 26th, 1931, there is not the slightest possible doubt that the Columbia representatives on the Board flatly stated that they would not sell any gas to the Missouri-Kansas Company irrespective of such excess quantities as they might have at the Indiana State line, and irrespective of price, if the Missouri-Kansas Company proposed to sell it to the City of Indianapolis. They (the Columbia crowd) said they proposed to sell gas in the City of Indianapolis, and that the Missouri-Kansas Company shouldn't.

"In my opinion the minutes as drawn were drawn for the purpose of clouding the issue and I do not see how you as a director can acquiesce in the statement in the minutes that Mr. Munroe made it clear, etc. The position taken by representatives of the Columbia Company on the Panhandle Board at the meeting of the latter company above referred to had nothing to do with the quantities or prices. It was a plain refusal to furnish gas irrespective of the contract, irrespective of excess volume, and irrespective of price, if you proposed to sell at Indianapolis, and I think you should hammer that in when you are asked to approve the minutes of the Board meeting held on August 13, and say that you do not and cannot possibly acquiesce in the position that Mr. Munroe made it clear, because it can't be made clear.

"Very truly yours,

"(Signed) RALPH M. SHAW."

Columbia Directors finally agreed to have the contract prepared covering the purchase and sale of this gas. In this connection, weeks were consumed by the law firm of Hornblower, Miller and Garrison in the preparation of such a contract, copy of which was never presented to me nor, obviously, was one ever concluded. Columbia, thereby, and its officers deliberately restrained Panhandle Eastern from receiving income possible to it in the sale of the 20,000,000 cubic feet of gas per day and making it impossible for Missouri-Kansas to successfully negotiate for the sale of any of this gas.

The proceeds from the sale of 20,000,000 feet per day at 18 cents would, at this time, be sufficient, in addition to Panhandle's earnings, to enable that company to meet all of its fixed charges including the sinking fund, so I am informed.

I have been informed that Columbia contends that, under the terms of the September 17th contract, they are not obligated to buy 20,000,000 feet of gas per day, but that under the terms of this contract they have the option to purchase 20,000,000 feet of gas per day. That this is not my understanding of the agree-

ment, I have repeatedly stated. It was the intent at the time that Columbia obligated itself to purchase this gas and, in my opinion, the wording of the contract of September 17th clearly so recites. In fact, the desire on the part of both Columbia and Missouri-Kansas for the gas at the time the September 17th contract was made was such as to represent a demand for the gas, such demand being so insistent as to represent almost a fight for the gas, and there was not the slightest question as to its being obligatory on the part of both to take the gas. Subsequent reference has been made to this situation, as in the case of Missouri-Kansas demanding a contract in accordance with their right to buy. The only part of this contract which, in my opinion, even borders upon an option, is that with respect to the 30,000,000 feet which, in a measure, is, or might be, more or less of an option, in view of the right to cancel this contract after ten years after excess capacity is no longer available. Irrespective of whether or not the wording in this contract of September 17th is ambiguous with respect to the purchase of this gas, and for the purpose of further proving the intent on the part of the parties to that contract, I call attention to the contract of June 20th, copy of which is attached and the agreement between Missouri-Kansas and Columbia signed by Mr. Pew and myself, of August 21st, 1930, which reads as follows:

COLUMBIA OIL & GASOLINE CORPORATION,
61 Broadway, New York, N. Y.

DEAR SIRS: Referring to our letter of August 21, 1930, and contract dated June 20, 1930, between Missouri-Kansas Pipe Line Company and Columbia Oil & Gasoline Corporation, we confirm oral agreement that in the event Columbia becomes financially interested in the Panhandle Eastern Pipe Line Company pursuant to consummation of the above contract, the undersigned agrees that the Panhandle Company will sell and Columbia agrees that it or its nominee will buy 20,000,000 cubic feet of natural gas per day, or more at Columbia's option, of the excess capacity of the proposed pipe line when finished, delivery to be made at or near the Illinois-Indiana State line or some point agreed upon east of said line, at 18 cents per M cubic feet, so long as said excess capacity gas is not sold to others at a more profitable return to the Panhandle Company.

This letter is written in duplicate, so that you may have one copy signed by a duly authorized officer and returned to us, thus constituting the contract between us.

MISSOURI-KANSAS PIPE LINE COMPANY,
By (signed) FRANK P. PARISH, *President*.

Accepted this 22nd day of August 1930.

COLUMBIA OIL & GASOLINE CORPORATION,
By (signed) JOHN G. PEW, *Vice President*.

Inasmuch as the purpose of this meeting is not to argue the question of interpretation of the terms of the September 17th contract, my purpose in going into this matter is purely in order that the records of this meeting may reflect accurately what, in fact, has taken place, and, in this connection, I wish to further point out that the Columbia Gas & Electric Company and its officers are directly responsible for the present financial situation of Panhandle Eastern by reason of willful neglect in not taking advantage of the local economic conditions within their control. Evidence of this can be readily understood from the following:

1. The shortage of the eastern gas supply has been often claimed by the Columbia Gas & Electric Corporation and its subsidiaries as the reason for serving mixed gas particularly in Cincinnati and Dayton.

The Company's position on this point is best evidenced by the paid series of ads in the Toledo Blade, running from February 16 to March 9, 1929, among the headings of these ads being:

- (a) "Do you know a better gas supply is vital to Toledo?"
- (b) "Saving cents or building Toledo—Which?" in which the Company stated, among other things, that "The present remedy for the gas service situation is a mixed gas supply. There is not enough natural gas to meet the city's needs."
- (c) "Are you thinking of rates or considering gas supply?"
- (d) "Do you know how much money is needed to supply gas?"

The Cincinnati "Post" in one of the series of articles on "What Price Gas?" brings out the fact that from 1925 to 1929 increased sales in the Union Gas & Electric Company's system had to be supplied by about a 200% increase in artificial gas and a 5% DECREASE in natural gas furnished.

2. The communities served by the Columbia Gas & Electric subsidiaries have been very eager for an increased natural gas supply and could be easily sold on

additional uses of gas for house heating and industrial purposes, at rates which the Company could afford to offer, if it took advantage of the cheap natural gas supply made possible by the Panhandle Eastern Pipe Line.

The series of articles in the Cincinnati "Post" on "What Price Gas?" was written primarily to voice the great eagerness of the Cincinnati community and industries for an increased supply of natural gas. As stated aptly in the February 27, 1931, article:

"The City of Cincinnati is the largest customer of the Union Company and is contributing the largest portion of the Company's profits.

"The Union Company has an obligation more than merely supplying gas and giving good service for the rates it receives. It has a civic duty to perform in return for what franchise it may hold. As part of that duty it should join with the City and its Chamber of Commerce in aiding the city's present industries and attracting new ones by submitting an industrial natural gas rate schedule and by obtaining a supply of gas sufficient to fill the increased demand which such rates will bring."

3. Some light on the potential market for additional space heating and industrial sales at properly reduced rates can be gleaned from the following comparison of gas sales in Cincinnati and Kansas City between 1927 and 1931, inclusive:

Cincinnati¹-Kansas City sales comparison

	1927 (M cubic feet)		1928 (M cubic feet)		1929 (M cubic feet)	
	Cincinnati	Kansas City	Cincinnati	Kansas City	Cincinnati	Kansas City
Gas sales.....	10,783,667	5,112,192	12,201,580	7,821,006	14,427,899	² 11,000,000
	1930 (M cubic feet)		1931 (M cubic feet)		1927-31 (percent increase)	
	Cincinnati	Kansas City	Cincinnati	Kansas City	Cincinnati	Kansas City
Gas sales.....	13,193,000	15,366,560	12,128,323	12,415,759	12.5%	142.9%

¹ Includes all of the Union Gas & Electric Co.'s system, corresponding to 138,651 domestic consumers in 1931 as compared with 108,895 domestic consumers in Cincinnati proper.

² Approximate.

Phenomenal percent sales increase in Kansas City from 1927 to 1931 is a direct result of changed sales policy both in the house-heating and industrial fields.

House heating rates have been reduced from the general domestic lowest bracket of 80c per M c. f. of STRAIGHT NATURAL gas to a special house heating lowest bracket rate of 50c per M c. f. The resulting increase in number of house heating consumers from 1927 to 1931 was 684% (from 2,180 to 14,912 consumers, or from a 2.45% to a 16.7% degree of saturation).

Because of the fact that 16.7% of all domestic consumers in Kansas City were using gas for central house heating in 1931, to which must be added over 170,000 room heaters or nearly two per average domestic consumer, house heating sales matched other domestic gas sales in Kansas City in 1931, the ratio being 1 to 1, while in Cincinnati for the same year, the estimated ratio of house heating to other domestic sales was only 40 to 100 or 40%.

Special industrial rates were introduced in 1927-1928 low enough to attract the BOILER LOAD (down to 15c per M c. f. of straight natural gas to the Sugar Creek Refinery and to local Central Stations). As a result, industrial sales have increased from a mere 700,000 M c. f. of straight natural gas in 1927 to about 5,300,000 M c. f. in 1931, or over 75 TIMES.

Thus, with practically no net gain in number of meters in five years from the 1927 figure of about 89,000 (due to depression), Kansas City gas sales have increased from 5,112,192 M c. f. in 1927 to 12,415,759 M c. f. in 1931, or about 143%, all due to the changed sales policy of offering sufficiently attractive house heating and industrial rates. The threatened competition from the outside which forced this change in policy, particularly so in the industrial market, thus turned out to be a blessing in disguise.

Commercial and industrial sales for the total Union Gas & Electric Company's system in 1931 were about 4,000,000 M c. f. of 875 B. t. u. gas (138,651 domestic consumers in a population of 635,400), while in Cincinnati the commercial industrial sales in 1931 were 2,220,000 M c. f. (108,895 domestic consumers).

If the Union Gas & Electric Company's system were, by offering attractive house heating rates, to reach a one to one ratio between house heating sales and general domestic sales (the latter being for cooking and water heating), as was accomplished in Kansas City or, in other words, if the present total domestic sales per consumer were to be raised from the 1931 Union Gas Company's experience of about 53,500 CUBIC FEET OF 875 B. T. U. MIXED GAS PER DOMESTIC CONSUMER to Kansas City's 1931 experience of about 80,000 Cu. Ft. of 1,050 B. T. U. NATURAL GAS PER DOMESTIC CONSUMER, the increased demand for natural gas, based on a 875 B. t. u. mixture, would, for Union Gas Company's 138,000 plus domestic consumers, amount to about 5,500,000 M c. f. of mixed gas per year corresponding to about a 79% increase in domestic sales.

Similarly, if industrial rates were offered comparable in competitive value to Kansas City's, then there should be no trouble developing an appreciable increase in industrial load in the region surrounded by Cincinnati, Columbus, Marion, Lima, and Muncie (including the Dayton region), without need to go as far as Toledo, etc. This industrial load, comparable to Kansas City's 1931 load of about 5,300,000 M c. f. for a territory corresponding to about 89,000 domestic meters, or 59,500 cu. ft. of 1050 B. t. u. natural gas per domestic meter equivalent, would be a substantial increase over Union Gas & Electric Company's close to 4,700,000 M c. f. of 875 B. t. u. mixed gas in a territory corresponding to over 138,000 domestic meters, or 34,000 cu. ft. of 875 B. t. u. gas per domestic meter equivalent. The resulting increased demand for natural gas, based on selling STRAIGHT NATURAL gas to the industries, would be about 4,000,000 M c. f. of natural gas per year.

Actually the industrial fuel market in the Cincinnati-Columbus-Dayton, Lima region is much greater in proportion to population than in Kansas City. Also the population is greater than the 635,000-plus figures of Union Gas Company's territory. Finally, the control by the Union Gas & Electric Company, etc., of central stations offers an unmatched and immediately available dump load market within complete control of the Columbia Gas & Electric Company's management.

An idea of the potential dump gas load market may be secured by comparing Kansas City Power & Light Company's fuel requirements with estimated requirements of the power companies in, say, Cincinnati, Columbus and Dayton, on a basis of proportionality to number of domestic meters, ignoring the advantage of the greater industrial electric power market in these Ohio cities as compared to Kansas City.

The fuel requirements of the Kansas City Power & Light Company are close to 20,000,000 cubic feet of natural gas per day. The number of domestic gas meters in Kansas City for 1931 was close to 89,000 while the number of domestic gas meters in Cincinnati, Columbus, and Dayton for 1931 were respectively 108,895, 70,780, and 50,260, or a total of 229,935 domestic meters or over 2½ times that in Kansas City.

On this basis the total fuel requirements of the Central Stations in the three Ohio cities should be not less than 50 million feet of natural gas.

The deficiency of approximately 17 million feet of natural gas per day in the Columbia Gas & Electric Company's gas purchases from the Panhandle Eastern could thus have been eliminated if only ONE-THIRD of the Central station load in Cincinnati, Columbus and Dayton were taken on a dump load at an industrial rate of about 15c per M c. f. of natural gas.

The Panhandle Eastern could afford to sell this gas to the Columbia Gas & Electric on an interruptable supply basis at about 12c, as such sales would be relieved of all fixed charges and would only need to cover the cost of gas, the additional cost of pumping and leakage and profits. Such profits would have materially increased the net earnings of the Panhandle Eastern and would have helped to meet the bond interest, etc. The control of central stations by the Columbia Gas & Electric Corporation offered an unmatched opportunity of utilizing this available dump load market with the least delay.

Of course, in addition there was and still is available in the above cities and surrounding region a large market for industrial gas at much better prices, which is greater and more diversified than Kansas City's industrial market.

Only an actual survey would bring out the true figures about this potential market for natural gas. Has the Columbia Gas & Electric Corporation made such a survey? If not, why was not such a survey made, both from the point of view

of good management of the Panhandle Eastern and of possible benefits to the Columbia's own properties?

4. That the Columbia's failure to take the 20 million cubic feet of natural gas per day from the Panhandle Eastern was not due to any questions of relative cost of gas is apparent from what follows:

Natural gas in West Virginia and Eastern Kentucky fields costs on the average of between 18 and 20 cents at the point of delivery from field gathering systems. The Columbia system has the obligation to take twenty million cubic feet of natural gas from the Panhandle Eastern at the Indiana-Illinois boundary at 18c per M, as long as there is excess capacity in the line. While Columbia does dispute that this obligation is legal under the terms of their contract, they cannot possibly dispute that the obligation is moral, if a ready market under their control exists for the gas, and I cannot conceive how they can dispute that such a moral obligation becomes a legal obligation in view of the circumstances with respect to the management of both Panhandle and Columbia.

Columbia also has an obligation to take another thirty million cubic feet per day at 26½c per M c. f., which has already been referred to herein.

Good management would have found but little difficulty in disposing of the first 20 million cubic feet of gas per day for industrial purposes at an average price of around 25c per M c. f. and of the remaining 30 million feet of gas per day for house heating purposes at rates comparable to those in Kansas City. The most logical territory for this gas would have been the Lima-Marion, Columbus-Dayton-Cincinnati region.

In addition to the normal industrial and house heating market, maximum use could have been made by an efficient management of the available dump load market to local Central Stations, etc., for which the price charged by the Panhandle Eastern to the Columbia system could have been equitably adjusted to about 12c per M c. f. at the Indiana-Illinois line, provided that such gas were sold on a strictly interruptible basis (with reasonable short notice before the dump gas is to be no longer available).

From the Panhandle Eastern Company's point of view, since the cost of gas delivered to the Illinois-Indiana state line, before interest, depreciation, and Federal Income Tax, lies between 8.6c and 5.6c per M, dump gas not being chargeable with interest, etc., could be profitably sold at about 12c. The profit thus made would bolster up the net earnings available for interest, etc., and thereby improve the chances for ultimate net profit to the owners of the common stock. No such possibilities exist for West Virginia and Eastern Kentucky gas.

Therefore, the cost of natural gas could not have been the possible justification for the Columbia's failure to take at least 20 million feet of gas per day from the Panhandle Eastern Company, so far.

What then was the reason for this failure? No reason can be given other than a deliberate attempt by the Columbia Gas & Electric Corporation to throw Panhandle Eastern Company into bankruptcy, for Columbia's own profit.

The fact that the ability of Columbia to market not only 20 million cubic feet but the additional 30 million cubic feet was a very simple matter, is further evidenced by the geographical location of their pipe line, making it possible to distribute this gas in the several communities, namely, Cincinnati, Dayton, Columbus, Lima, and Toledo, who, among them, could obviously handle this increased volume without any tax whatever upon the present physical equipment, with the possible minor exception of a short piece of pipe line from Marion, Indiana, to their Ohio system. Criticism of Columbia and its management in this instance cannot be too caustic. Aside from the fact that the bad faith evidenced is inexcusable, their judgment in this matter has been terrible.

The public relations situation of Columbia in the State of Ohio could have been solved by adroit handling of the situation. Lower rates could have been given voluntarily to command industrial and space heating markets at a desirable profit, thus satisfying the public's clamor for lower prices.

Obviously, I cannot approve the acts of the stockholders, officers, and directors of Panhandle Eastern Pipe Line Company. I see no reason for postponing this meeting for another month in view of pending negotiations between the two parties holding Panhandle Eastern Stock, as set forth in the letter to me of March 7, 1934, by Mr. Reynolds.

In view of these negotiations referred to, it is necessary for me to take aggressive steps in order to protect the interests of Missouri-Kansas Pipe Line Company and its twenty-odd thousand stockholders.

This is not intended to be a full and complete recital of all of the actions of Columbia, its officers and Directors in this connection, as a great deal more space could be devoted in completely covering the subject.

In order that a fair understanding of the general economic conditions, from 1931 to the present time, may be had, I wish to set forth the following figures taken from a monthly summary of the gas companies' statistics issued by the statistical department of the American Gas Association, Paul Ryan, Statistician:

Consumption of Natural Gas in the United States

	For the 12 months ended Dec. 31, 1931	For the 12 months ended Dec. 31, 1932	For the 11 months ended Nov. 30, 1933
	<i>M cubic feet</i>	<i>M cubic feet</i>	<i>M cubic feet</i>
Domestic.....	284, 197, 364	271, 514, 073	229, 077, 400
Commercial.....	42, 713, 591	43, 539, 236	74, 842, 000
Industrial.....	191, 960, 319	175, 889, 576	330, 666, 700
Main line, industrial.....	177, 576, 507	145, 472, 828	117, 237, 700
Miscellaneous.....	7, 309, 346	6, 984, 392	8, 374, 400
Total.....	703, 757, 127	643, 400, 105	760, 198, 200

The above clearly shows that the industrial outlets for gas have not been so effected by the depression as might be claimed and also, in this connection, I wish to refer to the report of the annual meeting of the American Gas Association in 1931, printed and bound copies of which are readily obtainable, at which meeting the subject of industrial sales during the economic depression were thoroughly discussed. The remedies recommended were: a change in rate structure, designed to secure heating, space heating, commercial and industrial markets, evidencing that what I have set forth herein is not a case of hindsight being better than foresight. In fact, recommendations were made and strongly urged and Columbia, obviously, has made no attempt to secure markets for the gas they were obligated to take had they made any effort whatever, the first step would have been a change in rate structure.

Further evidencing the ridiculousness of the contention that the Panhandle Eastern Line was ill-conceived and the inference that available markets are inadequate, I set forth the following estimates, which are self explanatory and conservative to the extent that an actual survey would probably show a result approximately twice the estimated markets available.

WESTERN OHIO POTENTIAL SPACE HEATING LOAD AT A 55C¹/M AVERAGE RATE FOR STRAIGHT NATURAL GAS (1050 B. T. U.)

Potential space heating load should approach the Equitable Gas Co.'s experience in the Pittsburgh district at the above rate, with due allowance for the difference between Pittsburgh's 1,135 and proposed 1,050 B. t. u. natural gas. This experience corresponds to a space heating market of 12 cu. ft. of 1,050 natural gas per year per customer per degree day. An average leakage allowance of 5% should be added.

Where straight natural gas is served all of the additional space heating gas would represent a potential wholesale market for the Panhandle Eastern Gas.

For the Cincinnati region (Union Gas), based on 1931 data, the market for Panhandle Eastern gas would represent only $100 \frac{(15,997,000 - 4,384,000)}{15,997,000} = 73\%$ of gas sold, or 8.75 cu. ft. of natural gas per year per customer per degree day, outside of provision for leakage.

¹ For 875 B. t. u. mixed gas, like in Cincinnati, the corresponding average rate should be 46c/M while for Toledo's 950 B. t. u. mixed gas, it should be 50c/M.

WESTERN OHIO

For Toledo we shall allow 10 cu. ft. of natural gas per year per customer per degree day plus provision for leakage.

Potential space heating market

Company and district	Average degree days	Natural gas per degree days per customer per year	Total natural gas market per customer per year	Present natural gas market per customer per year ¹	Available natural gas market per customer per year	Number customers	Available annual natural gas market
1. Union Gas & Electric Co. (Cincinnati, etc.) ²	4,400	<i>Cubic feet</i> 8.75	<i>Cubic feet</i> 38,500	<i>Cubic feet</i> 16,400	<i>Cubic feet</i> 22,100	138,651	<i>M cubic feet</i> 3,065,000
2. Columbus Gas & Fuel Co. (Columbus, etc.)	4,800	12	57,600	56,000	-----	55,549	-----
3. Dayton Power & Light Co. (Dayton, Piqua, Xenia, etc.) ³	4,800	12	57,600	24,000	33,600	72,088	2,420,000
4. Ohio Fuel Gas Co. (Elyria, Findlay, Marion, Mount Vernon, Mansfield, etc.; half of total taken from Western Ohio)	4,800	12	57,600	32,500	25,000	92,771	2,528,000
5. Northwestern Ohio Natural Gas Co. (Toledo, etc.)	6,000	10	60,000	35,500	24,500	58,221	1,426,000
Total	-----	-----	-----	-----	-----	417,280	9,439,000
Leakage allowance (5 percent)	-----	-----	-----	-----	-----	-----	468,000
Grand total	-----	-----	-----	-----	-----	-----	9,907,000
Or close to	-----	-----	-----	-----	-----	-----	10,000,000

¹ Space heating market only.

² Cincinnati in 1931 also used the equivalent of 2,275,000 M cubic feet of 1,050 natural gas from its manufacturing plants for mixing purposes.

³ Dayton also used some manufactured gas, not here included as potential sale of natural gas.

A 1926-1927 survey of Greater Kansas City showed the industrial market to be about 100 million cubic feet of natural gas per day. This included about 30 million feet of central station and railway power plant load, leaving about 70 million feet of straight industrial market.

Taking 50% of this figure to allow for present conditions, the available industrial market for a population of about 550,000 would amount to 35 million cubic feet of natural gas per day. Reduced to a yearly load and per capita basis, this would represent 23,000 cubic feet of industrial natural gas per capita per year.

The Western Ohio territory should be able to match this industrial gas market density easily. Without making an actual survey, such estimate probably has a factor of safety of 2 to 1.

Central station and railway power plant load would offer an additional load which could be sold on an interruptible supply or dump basis. Half of the total available central station and railway power plant load is a fair estimate of the potential dump load for the Western Ohio region under consideration. On a per capita basis this would represent, from Kansas City data, a dump load market of 7,500 cubic feet of dump natural gas per capita per year.

Potential industrial and dump gas market

District	Industrial market			Dump market		Total industrial and dump gas markets
	Population	Per capita	Total	Per capita	Total	
1. Cincinnati, etc.	635,400	<i>Cubic feet</i> 23,000	<i>M cubic feet</i> 14,600,000	<i>Cubic feet</i> 7,500	<i>M cubic feet</i> 4,750,000	<i>M cubic feet</i> 19,350,000
2. Columbus, etc.	310,500	23,000	7,100,100	7,500	2,350,000	9,450,000
3. Dayton, etc.	375,000	23,000	8,600,000	7,500	2,800,000	11,400,000
4. Ohio fuel territory (50 percent)	382,500	23,000	8,800,000	7,500	2,850,000	11,650,000
5. Toledo, etc.	301,900	23,000	6,900,000	7,500	2,250,000	9,150,000
Total	2,005,300	-----	46,000,000	-----	15,000,000	61,000,000

¹ Based on 75 percent of 1926-27 central station railway power plant fuel requirements of Greater Kansas City and on 50 percent of this reduced figure being available as potential dump load.

Potential natural gas market summary

District	Population	Additional space-heating market	Industrial market	Dump market	Replacing manufactured gas	Total market
		<i>M cubic feet</i>	<i>M cubic feet</i>	<i>M cubic feet</i>	<i>M cubic feet</i>	<i>M cubic feet</i>
1. Cincinnati, etc.-----	635, 400	3, 000, 000	14, 600, 000	4, 750, 000	2, 275, 000	24, 625, 000
2. Columbus, etc.-----	310, 500	-----	7, 100, 000	2, 350, 000	-----	9, 450, 000
3. Dayton, etc.-----	375, 000	2, 500, 000	8, 600, 000	2, 800, 000	-----	13, 900, 000
4. Ohio fuel territory (50 percent)-----	382, 500	2, 500, 000	8, 800, 000	2, 850, 000	-----	14, 150, 000
5. Toledo, etc.-----	301, 900	1, 500, 000	6, 900, 000	2, 250, 000	-----	10, 650, 000
6. Leakage-----	-----	500, 000	-----	-----	-----	500, 000
Total-----	2, 005, 300	10, 000, 000	46, 000, 000	15, 000, 000	2, 275, 000	73, 275, 000

Estimated load factor:

$$71 + \left\{ \frac{10}{0.25} + \frac{46}{0.70} \right\} = \frac{71}{105.6} = 0.672 \text{ or } 67.2\%$$

Required daily capacity:

$$\frac{71,000,000 \text{ M c. f.}}{365 \times 0.672} = 290,000 \text{ M. c. f. per day}$$

Ultimate capacity of Panhandle Eastern Line, 80,000 M cubic feet per day (with the three compressor stations planned March 1931).

When, in addition to the foregoing, consideration is given to the enormous markets in Detroit and other Michigan and Indiana markets, it will be obvious that the total markets still unserved in this general territory would require the entire capacity of at least three pipe lines paralleling the present Panhandle Eastern system before this vast territory could be fully served for which we do not have enough gas.

It is inconceivable that people in this business, whom one would logically except to be the peers, could fall so far short in foresight and management.

It is obvious from the foregoing that any attempt on the part of Columbia or Hillman to foreclose Panhandle Eastern Pipe Line Company successfully could be resisted upon the ground that they had both gone into Court with unclean hands.

FRANK P. PARISH, *Voting Trustee.*

NOTE.—In the recital of the above comments, wherein I mention Columbia Gas & Electric Corporation, I have not attempted to differentiate between Columbia Gas & Electric Corporation and Columbia Oil & Gasoline Corporation by reason of the relationship between the two and their respective positions and obligations in this instance.

COLUMBIA FRUSTRATED INDEPENDENT PROJECT FOR PIPING EASTERN GAS TO DETROIT, INQUIRY SHOWS

FEDERAL TRADE COMMISSION (VOL. 84-A, P. 595-6) DESCRIBES PROCEDURE FOLLOWED IN ELIMINATING POTENTIAL COMPETITOR FOR OHIO-MICHIGAN MARKETS

American Fuel & Power Co.—About the same time that the Chicago line was wrestling with the problem of an independent line (the Panhandle Eastern, sponsored by Missouri-Kansas Pipe Line Company) from Texas to the Middle West, another independent pipe line was being promoted in the Appalachian region, with the Toledo and Detroit markets as its main objective.

The American Fuel & Power Co. was organized in 1928 as a promotion of a group of small bankers and was the holding company for Kentucky Fuel Gas Corporation and Inland Gas Corporation. The primary purpose of the enterprise was the sale of gas to industrial consumers. Gas reserves and producing wells were acquired in eastern Kentucky, together with a small mileage of pipe lines. The original project got into financial difficulties, and early in 1930 the control of American Fuel & Power Co. passed into the hands of Hope Engineering Co. Under the new ownership contracts were made for a pipe line right-of-way for about half the distance from the producing field to Detroit, and numerous contracts were made with large industrial concerns at Detroit for sales of gas at specified rates contingent upon completion of the line.

Even before the Hope Engineering Co. assumed control, however, the Columbia Gas & Electric Corporation had begun the purchase of bonds of the Inland and Kentucky Fuel Gas corporations which owned the underlying physical properties. By the end of the year 1930 it owned 35 percent of Inland's bonds and 42 percent of Kentucky's. On October 9, American Fuel & Power Co.'s affiliate applied to the Detroit City Council for a franchise to lay mains in the streets for delivery of natural gas to the industrial sections of the city. The next day the Columbia directors authorized immediate commencement of construction of a pipe line from Toledo to Detroit. By the end of October, however, Columbia acquired about 76 percent of the common stock of American Fuel & Power Co. Among the former owners of the stock thus acquired was the Moody-Seagraves Co. Columbia thus became the principal creditor of this rival enterprise which threatened its Toledo market and its plans for exploitation of the Detroit market.

In less than 30 days after this acquisition by Columbia of the controlling stock interest, Columbia formally refused to loan money to meet maturing bond obligations and American Fuel & Power was thrown into receivership. The company and its subsidiaries had never had earnings sufficient to meet their fixed charges and it is hardly conceivable that Columbia was unaware of that fact when it bought the controlling stock interest. An official of Columbia testified that when the bonds were purchased it was expected that default would occur.

After getting control of American Fuel & Power Columbia apparently lost interest in the construction of a line from Toledo and Detroit, the immediate construction of which it authorized the day after American's affiliate had applied to the Detroit council for a permit. Columbia was obliged to pay nearly half a million dollars to be let out of its contract with the construction company after abandoning that line. Apparently one reason for its loss of interest was that it then had "plans and commitments" for bringing Texas gas to Detroit and Toledo, as stated by the head of Standard Oil's gas division, which was closely associated with Columbia in Ohio.

PART III

THE CITIES IN REVOLT

"A combination of interests is bent upon stifling competition in natural gas."—Common Council, City of Milwaukee.

"Millions of dollars can be saved to our gas rate payers if we act with a forthright and concerted purpose."—Council President John W. Smith, Detroit.

"Our experience has been that the natural gas monopoly has pitted one city in the state against another city."—Mayor Henry W. Worley, Columbus.

"The federal government must help create competition or we won't get cheap gas!"—Utilities Commissioner H. C. Wenzel, St. Paul.

"It requires fear of God, F. D. R., and Senate Committee to get utility officials to act."—Mayor Russell Wilson, Cincinnati.

"There has been produced certain evidence . . . which indicates the existence of an unlawful monopoly in the transportation and distribution of natural gas."—Concurrent Resolution, Indiana Legislature.

"It is hopeless to talk about state regulation or municipal regulation. We can't even investigate it as we should."—City Counsellor Charles M. Hay, St. Louis.

DETROIT HEADS REVOLT AGAINST GAS MONOPOLY, LAUNCHES PROBE TO SAFEGUARD USERS

LAW DEPARTMENT DIRECTED TO "INVESTIGATE THE ADVISABILITY" OF INTERVENING IN SUIT AFFECTING COMPANY WHICH SOUGHT TO PIPE GAS TO CITY; COUNCIL ADOPTED RESOLUTION ON JANUARY 15, 1935

Whereas a statement has been made under oath in the chancery court at Wilmington, Del., to the effect that approximately \$10,000,000 was paid by the Columbia Gas & Electric Corporation to purchase and eliminate a prospective

competitor, Northern Industrial Gas Co., in the delivery of natural gas from West Virginia to the Detroit market; and

Whereas a sworn statement has been made in this same court to the effect that the Columbia Gas & Electric Corporation by other unlawful means has thwarted the endeavors of Frank P. Parish, president of Missouri-Kansas Pipe Line Co., to bring natural gas from Texas to the Detroit market, the Columbia president, Philip G. Gossler, being charged with the assertion that the only interest that would be permitted to serve Detroit with natural gas would be a monopolistic combination of the Columbia Gas & Electric Corporation, Cities Service Co., and the Standard Oil Co. (New Jersey); and

Whereas these sworn statements are corroborated in substance not only by the experience of the city of Detroit in its futile endeavors to obtain a competitive natural-gas supply, but likewise by the Federal Trade Commission's investigation of public-utility holding companies (Federal Trade Commission report No. 47 on Columbia Gas & Electric Corporation, dated Nov. 13, 1932, and Federal Trade Commission, vol. 453, reporting on the Cities Service Co., dated June 4, 1934); and

Whereas we are reliably informed that receivers of the Missouri-Kansas Pipe Line Co. have proposed to the chancery court at Wilmington, Del., a settlement of said company's receivership, the provisions of which settlement have been characterized by United States Senator Gerald P. Nye as an attempt by monopolistic "natural-gas barons" to avert a Federal investigation of their unlawful restraints of trade, and as a plea to the court "to give its blessing on a release (to Columbia Gas & Electric Corporation) from anti-trust law prosecution"; and

Whereas extreme privation exists in Detroit and other cities of the Midwest due to inability of many families to pay exorbitant rates for gas service, while in the Texas Panhandle a billion cubic feet of natural gas is wasted daily because independent producers cannot market their gas, responsibility for this grave situation being charged to unlawful trade restraints by monopolistic pipe line companies; and

Whereas the city of Detroit is determined to preserve a "free market" in its negotiations to obtain a natural gas supply for Detroit homes and industries in order that gas costs to consumers may be drastically lowered: Now therefore be it

Resolved, that the corporation counsel of the city of Detroit be authorized and is hereby directed to investigate the advisability of preparing and entering immediately in the chancery court at Wilmington, Del., an intervening petition in the receivership settlement suit instituted by receivers of said Missouri-Kansas Pipe Line Co., and that the corporation counsel be directed also to consider requesting the assistance of the anti-trust division of the United States Department of Justice toward a reopening of hearings by said court on the proposed receivership settlement; and be it further

Resolved, that the common councils of the cities of St. Louis, Indianapolis, Cincinnati, Columbus, and Toledo and of other cities shall be informed of Detroit's resolution to intervene in said suit, and that these and other interested cities shall be requested by the corporation council to investigate the effects of the proposed receivership settlement on their prospects of obtaining an adequate and cheap supply of natural gas now or in the future, with a view to their co-operating for mutual civic benefit toward obtaining a reopening of hearings at Wilmington, Del., and a full and complete determination of all facts bearing on alleged scandalous violations of Federal and State anti-trust laws by certain pipe line companies.

UTILITIES' INTRIGUE TO MONOPOLIZE GAS SALES BARED BY DETROIT INVESTIGATION

CITY'S COUNSEL POINTS TO CONFLICTING TESTIMONY ON SUPPLIES AND MARKETING EFFORTS, CITES CARDOZA'S ANALYSIS IN OHIO LITIGATION

JANUARY 22, 1935.

To the Honorable, Mayor and Common Council of the City of Detroit:

GENTLEMEN: In compliance with your resolution adopted January 15th, 1935, directing that the undersigned be authorized and directed to investigate the advisability of preparing and entering in the Chancery Court of Wilmington, Delaware, an intervening petition in the receivership settlement suit instituted by the receivers of the Missouri-Kansas Pipe Line Company, and to consider requesting the assistance of the Anti-Trust Division of the U. S. Department of Justice towards a re-opening of hearings by said court on the proposed receivership settlement, I beg to report as follows:

I find that in said receivership proceedings of the Missouri-Kansas Pipe Line Company, testimony was taken of witnesses on behalf of the receivers and on

behalf of objectors to a proposed settlement then being heard. One of the questions involved was *whether the City of Detroit was an available market for natural gas* and, if so, why some forty million cubic feet daily of *excess* natural gas of the Panhandle Eastern Pipe Line Company (50% owned by the Missouri-Kansas Pipe Line Company and 50% by the Columbia Oil & Gasoline Corporation) at the Indiana-Illinois state line *was not made available for use in Detroit*. The following are excerpts from the testimony at said hearing:

E. J. Reynolds, Jr., Executive Vice President and Secretary of Columbia Gas & Electric Corp. (partner of Missouri-Kansas in ownership of Panhandle Eastern) and Vice President and Secretary of Panhandle Eastern Pipe Line Company, was questioned as follows:

Q. Has Columbia made any efforts to bring natural gas to Detroit?—
A. Yes, we have had *continuous* negotiations.

Q. Describe roughly or shortly these efforts, and what the difficulties you met with were, if any.—A. I cannot specify the date when negotiations with the Detroit City Company started, but we have had *negotiations* with them relating to their getting natural gas from us *over a great many years*. They have been very active since 1931 and since that time up to the present time negotiations have continued almost continually. Anytime there was a gap in the negotiations, it has been because we experienced a temporary lull in business. You all know that Detroit is an industrial center and a very important automobile manufacturing city, which is its dominating industry there, and it has suffered from the depression and its activity is greatly reduced.

Detroit has some very cheap competing fuels—coal and oil. There is also a very large amount of by-product gas present in that locality. It has been a very difficult matter to get into or to see a profit at a time such as the last three years against these competing prices.

The Detroit City Gas Company has had very serious problems which we have been unable to help but reconcile in connection with their own earnings. *We have not been able to negotiate an agreement.*

I further find that the following proceedings, in part, were taken before your Honorable Body on Wednesday, December 19th, 1934, the Mr. Woolfolk referred to being Mr. W. G. Woolfolk, President of the Detroit City Gas Company.

Councilman SMITH. In your advertisement in the newspapers you made some statement about natural gas—the inability to secure natural gas; not enough in the state, as you say, and you are unable to get any from Panhandle Eastern, or from Columbia.

Mr. WOOLFOLK. Yes; I made that statement.

Councilman SMITH. You don't want to go back on that statement do you?

Mr. WOOLFOLK. I don't want to go back on any statement I have made.

Councilman SMITH. Then I would like to have the Clerk read these telegrams. They may be illuminating.

(The Clerk thereupon read a telegram, Western Union, dated Dec. 19, 1934, addressed to John W. Smith, President, City Council, City Hall Building, Detroit, from Frank P. Parish as follows:

"I call your attention further to the fact—

Councilman SMITH. Read the other one first.

Mr. MURFIN. Who are they from?

The CLERK: Frank P. Parish, Chicago, addressed to Hon. John W. Smith, Detroit City Council, City Hall Building, Detroit:

"In response to your inquiry *there is and has been for the past four years fifty million cubic feet daily* natural gas available at the end of the Panhandle Eastern Pipe Line near Danville, Illinois, and much more could be made available by adding to pipe line facilities. This market is being *forced into bankruptcy for the want of a market for its gas*. I have charged Columbia and Hillman who are managing this line with deliberately refusing to sell Detroit and other available markets in order that they might eliminate all independent ownership in this pipe line."

It is dated December 19, 1934.

Councilman SMITH. There is another one there.

The CLERK (reading):

"I call your attention further to the fact that on October ninth nineteen hundred thirty the Northern Industrial Gas Company petitioned your Council for an industrial franchise. The *next day* Columbia Gas & Electric Company Executive Committee directed its management to *immediately* build a

line from Toledo to Detroit, although the gas company in Toledo, owned by Columbia, had shortly previous inserted advertisement in newspaper stating there was *not* enough natural gas for Toledo, supply was inadequate and declining. On October thirteenth Columbia Gas & Electric bought out Northern Industrial Gas Company's entire project. Rates have been supported for years on the theory of a scarcity of supply which in fact is not truthful. An investigation of Columbia, Hillman and the United Light and Power Company's understanding and agreements among themselves, would be very illuminating.

"FRANK P. PARISH."

Councilman SMITH. What have you to say to that?

Mr. WOOLFOLK. I have nothing to change my former statement. That Columbia Gas Company, we have no affiliations with them, and *we have been trying to buy gas from them for three and a half years.*

COUNCILMAN SMITH. This is the Panhandle?

Mr. WOOLFOLK. It is the same. Columbia Gas own, as I know, the Panhandle and have a fifty percent control of it. That is a big line coming from Texas, with *ample reserves*, a twenty inch line, and have ample gas to supply the City of Detroit. *I am sorry we can't get it.* Columbia would be very glad to sell it to us, and have offered it repeatedly *at a price we can't afford to pay.* There is no use buying gas from Columbia when we can't do anything with it when it gets here.

Councilman SMITH. You say an *unreasonable price*?

Mr. WOOLFOLK. I consider it so. I think they have an *exaggerated* idea of the value of their product.

Mr. WOOLFOLK. That covers amortization and pumping and interest on their investment. I think the figure is too high. *Columbia has offered gas at forty cents.* We can't pay forty cents for it at the city gates.

Comparison of the testimony of E. J. Reynolds, Jr. (in the Missouri-Kansas receivership litigation) with that given to the Council by Mr. Woolfolk concerning their failure to supply such natural gas to Detroit is *conflicting*. Mr. Reynolds gave as Columbia's reasons, the depression and general business conditions. The statement of Mr. Woolfolk, on the other hand, was that his company had been trying for three and one half years to buy gas from the Columbia interests who were asking 40 cents a thousand cubic feet, which price he claimed was too high. I further find that, in a letter from Mr. Woolfolk read to your Honorable Body on January 16th, 1935, Mr. Woolfolk declared in part as follows:

I take this opportunity to again state the Detroit City Gas Company is desirous of obtaining natural gas in substantial quantities delivered to our system from a dependable and adequate source, and at prices which will permit its use. This we have so far been unable to do.

If Mr. Parish has natural gas to offer at attractive prices, will be glad to receive a proposal from him, and to work out a contract for its immediate delivery.

This letter will be delivered to you on my behalf by James G. Murfin, general counsel and director of the company.

At this same meeting, the Council brought out the following facts, as recorded in the stenographic report thereof:

Councilman SMITH. I understand that there is a price mentioned by Mr. Woolfolk of 35 cents; that he intended to bring it in here today.

Mr. MURFIN. He could not touch it at 35 cents. He is in competition with oil and butane, and such natural gas wouldn't do us any good, or any-body else any good.

Bearing on this particular subject, I wish to call your attention to the fact that there has been submitted to me a copy of a memorandum agreement dated January 11, 1932, initialed on behalf of the United Light and Power Company and the Columbia Oil and Gasoline Corporation, a copy of which agreement is hereto attached and made a part of this report.

It will be noted from this agreement that Columbia Oil and Gasoline Corporation and United Light and Power Company were to buy natural gas from the Panhandle Eastern Pipe Line Company at *eighteen to twenty-six cents* a thousand cubic feet and sell it to the Detroit City Gas Company at *thirty-five and one-half cents* a thousand cubic feet. This evidences that, under some conditions, *thirty-five cents is not too high a price*, contrary to the statement made by Mr. Murfin.

It should be noted that this contract contemplated joint ownership by Columbia Oil and Gasoline and United Light and Power Companies of the pipe line serving Detroit, and that *such joint ownership was to be kept secret for some time*. It would appear also from the agreement of January 11, 1932, that the United Light and Power Company expected to own, or otherwise acquire, the interests of the Missouri-Kansas Pipe Line Company in both Panhandle Eastern Pipe Line Company and the Kentucky Natural Gas Company.

At the proceedings before your Honorable Body on January 16, 1935, the following statements were made:

Mr. PARISH. Well, the Panhandle Eastern Pipe Line Company has, at the moment, approximately 50,000,000 feet of gas available daily, and has had for almost four years, and yet that line is going bankrupt for the want of a market, and I am interested in knowing why this market is not on this line, and the City of Detroit, I understand, is interested in knowing why. All these years have gone by, and the market is not on. It is of common interest. Mr. Woolfolk can undoubtedly explain why.

Mr. MURFIN. I know Mr. Woolfolk has made genuine and sincere efforts for over three years to find natural gas to help out this Detroit situation.

Mr. PARISH. That is a fine general statement. I should think we would want to know specifically what those efforts were, and why they have failed.

Mr. MURFIN. *Why the other efforts have failed is beside the question*. If you will make an appointment with Mr. Woolfolk when he gets home, you can sit down at his desk and get together. *It is a question of the price*.

Mr. PARISH. I am not aware of what has happened up to the present time.

Mr. MURFIN. That is none of your business.

I call your attention to the foregoing for the purpose of showing the inconsistency between the testimony of E. J. Reynolds, Jr., of Columbia in the receivership proceedings, and the statements made by Mr. Woolfolk and Mr. Murfin.

In the said receivership proceedings in Delaware, J. H. Hillman, Jr., of Pittsburgh, Pa., (previously referred to) a witness for the receivers and a party interested in securing the approval of the Chancellor to the proposed settlement, testified in part, as follows:

Q. What company was the operating gas company that you took the matter up with in Detroit?—A. I didn't take the matter up with any operating company in Detroit.

Q. *Did you find a market in Detroit for natural gas?*—A. *No, sir*.

Q. *None, whatever?*—A. *No, sir*.

Q. In addition to United Light & Power, did you take it up with the Detroit City Gas Company?—A. Really, I think my negotiations were all with Mr. Chamberlain. Mr. Woolfolk was at that time, at the time I talked with him, was an employee of the United Light and Power.

In view of the resolutions and proceedings heretofore had before your Honorable body, I considered the testimony of Mr. Hillman, with respect to the market of natural gas in the City of Detroit, of sufficient importance to quote the same. It will also be noted that Mr. Hillman's activities with respect to Detroit were entirely with the United Light and Power Company, and *not with the Detroit City Gas Company*.

I am advised that the Detroit City Gas Company is a subsidiary of the United Light and Power Company.

It further appears to me from said receivership proceedings that a contract was entered into between the Columbia Oil and Gasoline Company and the Missouri-Kansas Pipe Line Company where each of said companies was to purchase at prices fixed in the contract, twenty million cubic feet of natural gas daily from the pipe line of Panhandle Eastern Pipe Line Company owned jointly and equally by them; that Columbia Oil & Gasoline Corporation *has not purchased any natural gas whatever from said pipe line under said contract, nor have they permitted the Missouri-Kansas Pipe Line Company to purchase any natural gas under said contract*.

It is contended by Columbia Oil & Gasoline Corporation that, at the time of making of said written contract, there was also an oral agreement whereby Missouri-Kansas Pipe Line Company and Kentucky Natural Gas Company, its subsidiary, *were not to sell any natural gas north of a designated line running east and west across the state of Indiana, which territory included the City of Detroit*. The making of this oral agreement is denied by the Missouri-Kansas Pipe Line Company. But it seems clear from the documentary evidence introduced in said receivership proceedings that Columbia Oil and Gasoline Corporation *refused*

to carry out the terms and provisions of the written contract of September 17, 1930, because Missouri-Kansas Pipe Line Company denied that the oral agreement to divide territory had been made.

Mr. Gossler, President of Columbia Gas & Electric Corporation, and director of Panhandle Eastern, made the statement, as testified to by Mr. Parish and not denied by Mr. Gossler, to the effect that Missouri-Kansas Pipe Line Company could not participate in the sale of Panhandle Eastern Pipe Line Company natural gas to the City of Detroit, and that anything beyond the Illinois-Indiana line was out of Missouri-Kansas Pipe Line Company territory, and that it has absolutely no right to participate in any natural gas sales in the State of Indiana or Michigan. (Res. Ex. 24.)

On the same subject, Mr. Reynolds testified as follows:

Q. That I understand, but it is true, is it not, that the territorial distribution was put there at the instance of Columbia officials?—A. Well, as distinguished from Missouri-Kansas representatives on Panhandle, yes.

I call attention to the aforementioned contract, contended to have been supplemented by an oral agreement, and the interpretation placed thereon by Columbia Oil and Gasoline Corporation, and what it may indicate with respect to the efforts of Columbia Oil and Gasoline Corporation to control the natural gas in said pipe line.

I call attention to Columbia's efforts to prevent Missouri-Kansas Pipe Line Company from marketing twenty million cubic feet of natural gas daily to which it was entitled in the territory north of the territorial line, including Detroit. The facts have a direct bearing upon that part of your resolution of January 18, 1935, with respect to requesting the assistance of the Anti-Trust Division of the United States Department of Justice toward a reopening of said hearing by said Court on the proposed receivership settlement.

I further find that there is conflicting evidence as to the reserve of natural gas in the Eastern fields controlled by Columbia (Columbia's repeated advertisement in Ohio newspapers, vs. Reynolds' testimony). In checking the statement in Columbia newspaper advertisements in 1929, to the effect that Columbia's source of supply from the Eastern field is inadequate and declining, and that there was not enough gas for Toledo, I find that Mr. C. A. Munroe, a Columbia director, said in 1931, two years after the ad appeared, that such assertions were facts eight years before, but were no longer so. Again on the other hand, I find that as recently as October 8, 1934, Columbia advertised in an Ohio newspaper: "When there is not enough for all, who gets it?" (Toledo Blade clipping attached), despite the sworn statements of Mr. Reynolds at Wilmington, Delaware, to the effect that Columbia now has too much gas, had given up many of its leases, and had also shut in many of its wells in the Eastern field.

It seems to have been conceded by all parties in the receivership litigation that there is now, and has been at all times since the completion of the Panhandle Eastern pipe line, at least forty million cubic feet daily of excess natural gas at the end of said line at the Indiana-Illinois border, which excess gas has not been sold or used but which could, if parties were agreeable, have been used as a source of supply for the City of Detroit.

In the case of *Columbia Gas & Electric Co. vs. Public Utility Com.*, 292 U. S. 899, another subsidiary of the Columbia Group was in difficulties in the City of Columbus, Ohio, where the gas rate was fixed at 48 cents per 1,000 cubic feet. It appears that part of the gas used was purchased from subsidiaries and part from independent producers. Columbia Gas filed a petition for an increase in rates. The Commission by a divided opinion increased the rate from 48 cents to 55 cents, the minority opinion fixing the rate at 31.70 cents and the total retail price at 47.95 cents. The matter was taken to the Supreme Court of Ohio, which Court held that an adequate gateway price would be 31.70 cents or less and that the ordinance rate, namely, 48 cents, was valid.

In this case it was brought out the Columbia Gas & Electric Company held very large reserves of natural gas, only 14% of which were in use, and that it was unfair to include for rate-making purposes the cost of carrying reserves not needed.

On appeal the U. S. Supreme Court reversed and Justice Cardozo said:

At times the immediate purpose of buying up extensive tracts (gas leases) is to forestall or stifle competition that might bring the price down.

The evidence in this case is very interesting, also enlightening, as to the low rates possible when attention is directed to the fact that the retail gas rate of 48 cents per 1,000 cubic feet is equivalent to approximately 25 cents per 1,000 cubic feet for the 530 B. T. U. gas now served in Detroit.

In a rate case of the Dayton Power and Light Company, a Columbia subsidiary, before the Ohio Commission, which proceedings finally ended in a United States Supreme Court hearing, and is reported in Vol. 78 of the Supreme Court advance Opinion, page 832, there appears a contract between two subsidiaries of the Columbia Gas & Electric Company, calling for the payment at the city gate of Dayton of 45 cents per 1,000 cubic feet. The Commission found this price to be excessive and reduced it to 39 cents.

The methods used by the Columbia Group in maintaining a high rate are carefully analyzed in this case by Justice Cardozo, and I quote briefly from his opinion:

dissection of the several items that have been criticized in the appellant's argument has thus brought us to the conclusion that the order of the Commission, whether generous or ungenerous, is at all events not confiscatory, and hence not subject to revision here. But the conclusion has reinforcements that come to it from other avenues of approach. In a statement put in evidence by the appellant, the rate of return under the new schedule is said to be $1\frac{23}{100}$ percent of the fair value of the property. Under the earlier schedule the revenue was even less. So modest a rate suggests an inflation of the base on which the rate has been computed. *It is a strain on credulity to argue that the appellant, when putting into effect a new schedule of charges, was satisfied with one productive of so meager a return.* The same surprise is excited when we consider what it claims as to the fair value of the gas delivered at the gates. All that the affiliated seller asks is 45 cents per thousand cubic feet. Yet, according to the appellant's figures, 7 cents more, or a price of about 52 cents, is necessary to protect the seller against the wrong of confiscation. *The arguments prove too much; the valuations are discredited by the teachings of experience. Men do not transact business without protest at confiscatory rates;* at all events, in the absence of extraordinary circumstances existing, the appellant has not proved them. *Nothing in the record lays the basis for a belief that the natural gas business in Ohio is unable to pay its way.* That being so, what the public utility has done belies what it has said. *We shall hardly go astray if we prefer the test of conduct.*

From the foregoing, the conclusion is irresistible that the object and intent of the Columbia Gas & Electric Company on buying the Northern Industrial Gas Company project was to eliminate a competitive source of supply from the city of Detroit, and it is evident that if the proposed settlement before the Chancery Court in Wilmington, Delaware, is approved, the city of Detroit will have to look to the Columbia Gas & Electric Company for its natural gas supply, in which event this city could hardly expect treatment differing widely from that experienced by other cities, and judging from the information at hand, the city of Detroit should take such action as necessary to avoid being under the domination of a monopoly of the Columbia Gas & Electric Company alone, or combined with the United Light and Power Company, which controls the Detroit City Gas Company.

While it would take too much space to set forth all of the facts here, I believe it important to call attention to the charges of falsification of the minutes of the Board meetings of the Panhandle Eastern directors, which charges were accompanied by convincing evidence and *undenied*, though E. J. Reynolds, Jr., Secretary of the Panhandle Eastern Pipe Line Company, and Executive Vice-President and Secretary of the Columbia Gas & Electric Company, was present, and in constant attendance at the hearing before the Chancery Court in Wilmington, Delaware.

The evidence reeks with illegal and fraudulent agreements, indicating the existence of a combination of utility interests joined together for the purpose of preventing a successful development of an independent competitor in the industry, in respect to which my report would not be complete without the complete text of the telegrams which passed between Henry L. Doherty, President of Cities Service Company, and C. E. Mitchell, President of the National City Bank, copies of which are attached and made a part of this report.

The city of Detroit is not a party to the receivership proceedings in Wilmington, Delaware, and hence I am of the opinion that it would not be advisable to attempt an intervention by the city of Detroit in said proceedings for the purpose of reopening the hearing. My conviction is that *it is a matter requiring and deserving Federal investigation*, and also that there is an urgent need for Federal regulation directed to stop the present waste of natural gas which has reached staggering proportions, and for Federal regulation of the Interstate Transportation of natural gas.

My recommendations are that your honorable body adopt a resolution in form and substance as in the resolution herewith submitted, and that a certified copy

thereof, together with a copy of this communication, be furnished for the purpose of filing in said receivership proceedings pending in Wilmington, Delaware, and further that certified copies of same be sent to the U. S. Department of Justice, and to the Federal Trade Commission, at Washington, D. C.

I further recommend that in the interests of prompt action in this matter that a copy of the resolution adopted, together with a copy of this communication, be sent to the Honorable Burton K. Wheeler, Chairman of the Interstate Commerce Committee of the Senate, requesting an immediate investigation by that committee. Such investigation is necessary in a matter that is as far reaching and important as the issue herein involved, and in my opinion it is only through such action that the city of Detroit, as well as other cities, can be protected from the domination of the large utility gas and power companies, *a domination now so great that cities and states can no longer give their citizens adequate protection because of limitations with respect to legal remedy.*

Respectfully,

JAMES H. LEE,
Assistant Corporation Counsel, City of Detroit.

Exhibit Attached to Lee Report

Memorandum of Agreement—January 11, 1932

I. Columbia and United recognize the paramount importance of building up a capacity load on the Panhandle Eastern Pipe Line and the attractiveness of the Detroit market to this end, but deem it inadvisable themselves to finance the pipe line connection to Detroit at the present time. They agree to join in the financing and the construction of such connecting pipe line when mutually deemed expedient and at that time to enter into the contracts contemplated in items II and III, below, for a twenty-year period, the price to be fixed for the first ten years and thereafter to continue from year to year, subject to either party's giving one year's notice to the other of the termination of the then current price, which notice may not be given before the end of the ninth year from the date of the contract. Upon such notice from either the parties will meet immediately to negotiate the price thereafter, and if they cannot agree within a reasonable time the matter will be settled by arbitration.

II. As soon as the Detroit line is in operation, Columbia and United will purchase gas from Panhandle Eastern Pipe Line Company at the Indiana-Illinois line for delivery to the Columbia and Detroit markets, the price to be $26\frac{1}{2}$ c per 1,000 cu. ft., except that during the development period the price is to be 18c during the first year of actual operation of the line to the Detroit market, and during the second, third, and fourth years the prices will be between 18c as a minimum and the maximum of $26\frac{1}{2}$, approaching the maximum as determined by the formula $P = 26\frac{1}{2} - 4\frac{1}{2}(N - R)$ wherein

P—Price for the current month in cents per thousand cubic feet.

R—Net earnings rate under natural gas operation in percent of fixed and working capital at Detroit for last preceding twelve-month period.

N—The normal net earning rate of percent of fixed and working capital at Detroit which, not exceeding 8%, is agreed upon as two greater than the actual rate earned in the latest twelve-month period before the introduction of natural gas.

In calculating the net earning rate at Detroit for the purposes of the formula, the present accounting practices at Detroit shall be followed, except that the rate of 1.85% shall be used for depreciation and retirement.

III. Columbia and United contemplate that Columbia will take from the Panhandle Eastern Pipe Line Company each year the same volumes of gas as United takes therefrom for the Detroit market and at the same price. They agree that the estimated minimum requirement for the Detroit market for the first year of actual operating is six billion feet, so that in that year under this arrangement Panhandle Eastern Pipe Line Company will be selling twelve billion feet to these two markets combined.

IV. They also agree that if and when the requirements of the Detroit market, together with an equal amount to be taken by Columbia, exceed the present capacity of the Panhandle Eastern Pipe Line Company, these parties will mutually arrange in equal amounts for the additional capacity necessary to adequately supply the Detroit market, unless United then chooses to draw its share of such additional gas from its Kentucky companies.

V. Until the Detroit line is in actual operation, but in no event for more than three years from date hereof, Columbia and United will contribute equally to payment of the operating costs and fixed charges of the Panhandle Eastern line or will cause such contributions to be made. Any gas taken either by Columbia or United or otherwise sold by Panhandle Eastern line shall go to reduce equally the liability of both parties. Any such advance in fulfillment of said liability shall be evidenced by interest bearing obligations of the Panhandle Eastern line.

In consideration of said agreement, Panhandle Eastern may sell gas to Columbia, United, or any other party or parties at the price or prices approved by the Board of Panhandle Eastern.

VI. Columbia and United have no obligation hereunder until a plan is developed satisfactory to both of them for the financing of the pipe line extension from the Indiana-Illinois state line to the Ohio-Michigan state line for supplying the Detroit market. The plan at present under contemplation proposes that the line shall be financed, built, and operated for at least one year and possibly two at the option of Columbia and United by a company not owned initially by either Columbia or United, which will sell the completed line in equal shares to Columbia and United at such time as the latter may choose between the end of the first year of operation and the end of the second year of operation at the cost of construction, including a fair contractor's profit, plus carrying charges, and any deficit in operations up to the time of such recapture. Columbia and United are to agree to such recapture not later than the end of the second year of operation. The plan also contemplates that the pipe supply companies will agree to take in payment for any pipe line supplies furnished by them for the construction of this Detroit line the obligations of Panhandle Eastern Pipe Line taken by Columbia and United for any advances made by them as contemplated in Paragraph V above, and that when such arrangement has been made, to the full extent of the cost of such pipe line supplies, Columbia and United may be expected to advance during construction against interest bearing obligations of the Detroit line in equal amounts to the extent of \$1,000,000 each.

VII. The contract between the parties embodying this agreement will contain other general clauses to cover details, mechanics and omitted matters, will express the rates herein mentioned in promotional form of rate schedule, and will include a general arbitration provision, and the whole hereof is subject to the approval of the respective Boards of Directors of the parties.

For the United Light & Power Company:

C. N. C.
W. C. W.

For Columbia Oil & Gasoline Corp.:

E. R., JR.

Exhibit 6485 (F. T. C. Report No. 83, Page 1026)

MR. PRESTON: Do not let this letter get out of your hands, and do not permit any photostat to be made, as it would irritate Columbia very much if they knew this, as they in turn do not want to irritate United Light & Power on account of being in partnership with them in the Northern Natural Gas Co. The largest stockholder in Columbia has assured me that they will find their share of the money to carry through this project.

J. H. H., JR.

Federal Trade Commission.

J. H. HILLMAN, Jr.,
First National Bank Bldg.,
PITTSBURGH, PA., April 24, 1932.

Mr. P. B. PRESTON,
Detroit, Mich.

DEAR MR. PRESTON: As explained to Mr. Leavitt on the telephone, we have always maintained a policy here in Pittsburgh of keeping out of the newspapers, and there are some especially good reasons why no public statement should be issued regarding the financing of the proposed Rockville-Detroit pipe line. I wish, however, that you would show this letter and statement to Mr. Leavitt.

A 20-inch line from Rockville to the Michigan State line will cost approximately \$5,000,000, including cost of financing and other reserves for contingencies, etc. This line would be financed by a \$3,000,000 bond issue, and \$2,000,000 of equity money to be provided by term notes, preferred and common stock.

A definite plan has been worked out on this financing, and the interests that proposed to join in this financing are those that are already interested in the main trunk pipe line.

Mr. Leavitt is already familiar with the names of those people who are willing to join in the construction of this line, which they regard as a necessary extension in order to make the big line successful.

As soon as a contract of gas can be signed up, work on this project can be started.

Yours very truly,

J. H. HILLMAN, JR.

**CITIES SEEK HELP OF CONGRESS TO RESTRAIN NATURAL GAS MONOPOLISTS—
FORM ALLIANCE TO REDUCE RATES BY HALTING ENORMOUS WASTE, REGU-
LATING INTERSTATE PIPE LINES, AND ENFORCING FEDERAL ANTI-TRUST LAWS
IN THE MIDDLE WEST**

NOTE.—The Nation-wide movement for lower gas rates was inaugurated by midwest municipal officials at Columbus, Ohio, on January 28, 1935. Since most cities are still afflicted by the evils cited at that conference, a digest of the Columbus proceedings is presented here.

**COLUMBUS EXPENDS HALF MILLION DOLLARS IN FIGHT FOR HONEST GAS RATE—
THREAT OF GAS FAMINE REVEALED**

Address of welcome by Mayor Henry W. Worley

I want to thank each of you for coming to Columbus, and to thank the Committee in charge of the arrangements for making Columbus the meeting place to discuss such an important matter as the natural gas situation. We are told we are being honored because of the fact that Columbus has an outstanding position in the natural gas controversy that has been raging for a good many years. It is true that Columbus has refused to be bluffed by the utilities in the gas industry and has insisted, for a good many years past, that gas be delivered to this city at a rate which would guarantee a fair return on the investment properties, but no more than that.

We have three cases at the present time, either in the courts or before the Public Utilities Commission, each case covering a five year period. For each five years we have fixed a new gas rate, which was immediately contested in the courts and commission. We have been very successful in the fight that we have had, for *we have in Columbus a rate of forty-eight cents per thousand cubic feet for natural gas of one thousand or eleven hundred B. T. U.* That rate was fixed by a Federal Court in a case that is now some twelve or thirteen years old, as a rate that would give a fair return on the value of property used, in the distribution of gas. While we believe that rate is still too high we, of course, cannot go back beyond that Federal Court decision. Every five year period they told us about the impending shortage—that there isn't enough to go around. We haven't accepted all of that propaganda, because we know that in the West Virginia and Kentucky field alone, *if properly developed*, there would be plenty of gas for all of the middle west. There are thousands of acres of potential gas land undeveloped in those fields.

We expect, possibly while you are with us, to have a decision in one of our cases come out of the Public Utilities Commission, and on that decision the action of a number of Ohio municipalities, regarding the gas situation, will depend. We are trying to establish, and believe we have established, at least a reasonable gate rate, and with that established, it is not hard to determine the cost of distribution to make the retail rate. I believe that, while the City of Columbus has spent nearly one-half million dollars in these various legal battles, *it has been most successful in its fight.* If we can lend to the other municipalities any encouragement, or if you can benefit in any way by our experience; or if we have any information that you may want to use in your contest that may be pending, let me say to you that all this information is at your service.

The particular purpose for which this meeting was called by Mr. Smith, the President of the Detroit City Council, was to discuss the necessity for an investigation by the U. S. Senate into monopolistic practices in the natural gas industry. The experience of Columbus has been that the natural gas Monopoly has pitted *one city in the state against another city*, and we know also that the Monopoly

pits *one state against another* here in the Middle West. So you see that it will take concerted action on the part of all municipalities—and this is absolutely necessary—if we are to put into effect the proposal of lower gas rates based on a fair return. In Ohio the natural gas interests have told us for years, and tell us today, that *unless we pay their price, the gas will be diverted to some other community that will pay the price*. They have always told us that there is not enough to go around and yet—only recently—we have had in the Ohio newspapers a very thinly veiled threat that *unless the price is increased* the gas will be diverted. While they preach a shortage of gas in these fields, at the same time they are building pipe lines to the Atlantic seaboard to divert the gas.

I have an advertisement recently published in one of our newspapers in Columbus. I will just read it to show you the attitude of the distributing gas companies in this territory.

"This year, 1934, probably will go down in history as the year in which things happened that many thought couldn't or wouldn't be done. Some feel that, after years of continuously good gas service, no interruption or impairment can come to it—that the scene of a housewife wearing a coat huddled over the gas range trying to get the coffee to boil could not happen in this city. But you must remember that neither this city nor this company can control either the supply or price of gas which we do not own.

"While every legal entanglement is thrown in the way of the gas company to prevent its receiving a compensating rate, *other and larger cities without natural gas service* are becoming interested in the same fields of supply from which your gas is drawn. The people of these cities are using manufactured gas at the equivalent of several times the highest rate ever to be suggested locally for natural gas. Because it would represent a large saving to them, unless the gas company is granted a compensating rate higher than 55c, higher than 60c, more nearly 75c, we cannot hope to compete with these cities for natural gas. Our supplies will be drifting into these new markets.—The Gas Company."

I have a picture of a woman cooking coffee with a fur coat on. There was another one of those advertisements published in the Toledo paper, which showed a mechanic *turning off the gas* to demonstrate that *unless we pay the price*, they will shut us off.

Concerted action is going to be necessary and I don't believe there is any better way for us to start our action than to know exactly the condition of the industry. *No city in the country is able to gather the information or data alone*. As I have told you, we have spent nearly five hundred thousand dollars in legal and engineering fees. This gives you an idea of the measure or amount of money that would be necessary to gather information that might be used. The information will be of no use to any one community unless there is concerted action on the part of all communities. Therefore, I believe that the most important thing we have to discuss is this matter of a Senatorial investigation, if we are agreed that such should take place. First of all, I want to thank you for coming, and to tell you that you are welcome. Everything we have is at your service. This group should organize, at least to the extent of appointing its officers, President and Secretary, and possibly an executive committee, so that if any action is taken it may be transmitted to some other authority, possibly at Washington.

DETROIT: "WE MUST COOPERATE IN REVEALING SINS OF AN INDUSTRY FOR WHICH THE RATE PAYERS ATONE"

Response by Council President John W. Smith

Mr. Mayor and Gentlemen: A sense of duty impels me to say that it gives me pleasure on behalf of myself and the other public officials to express to you, Mayor Worley, our keen appreciation of your kindness and thoughtfulness in making it possible for us to meet in your splendid City Hall. It is true, in the selection of a City wherein this conference should be held, the eyes of everyone turned immediately toward Columbus. For here we are in the capital of the State that harbors what I consider to be the worst offender with respect to the evil that we are taking exception to, the State where *the nation's most vicious and unprincipled natural gas Monopoly had its beginning, and where it lives and where it flourishes today*.

We recall with pride and admiration the great fight you have made here. It has been an inspiration to me and to every other honest public official who is confronted with the grave responsibility of getting a fair gas rate for the rate payers. We recognize that in your fight, Mayor Worley, you are confronted with an unscrupulous foe, a foe that is *entrenched and fortified by the unfair earnings of*

its farflung natural gas empire. And as we marvel at the manner in which you have prevailed, we have in mind also the twenty thousand cities, towns, and villages throughout the United States whose public officials are solemnly obligated to see that only FAIR gas rates—or HONEST rates, as I call them—are asked of the rate payers, and that *no piratical tribute* is levied upon them.

You gentlemen who are gathered here are aware of the propaganda spread by the utility companies—propaganda which charges that honest officials through their fights for fair rates are attempting to destroy a great industry, and to wreck the investment of colleges, widows, and insurance companies. As you know, *there is no desire on the part of any worthy public official to hurt or harm any honest investment in a public utility*, but we who have been following this question for years recognize that, with rare exception, there is not an entirely honest capital stock in the utility business in America. In this connection I suggest that you read the testimony taken by the Federal Trade Commission where, under oath, confessions were wrung from the unwilling lips of those public utility holding company executives and financiers who testified there. In a recent report on its conclusions and recommendations with respect to eliminating the evil practices of these great utility corporations—*practices which afflict our cities like a cancer*—the Federal Trade Commission makes this statement:

"In the last analysis the practices and conditions which they (the holding companies) have created must be judged not only by economic results but by ethical standards. It is not easy to choose words which will adequately characterize various ethical aspects of the situation without an appearance of undue severity. Nevertheless the use of words such as fraud, deceit, misrepresentation, dishonesty, breach of trust and oppression are the only suitable terms to apply if one seeks to form an ethical judgment on many practices which have taken sums BEYOND CALCULATION from the RATE PAYING and INVESTING public."

In the face of this indictment by the Federal Trade Commission, resulting from a six year investigation, one of the country's principal public utility holding companies last week had the brazenness and effrontery to publish in the *Detroit Free Press* an advertisement that was entitled, "An Appeal to Reason," and signed by the Associated Gas & Electric System, of Ithaca, N. Y. Now the Associated is one of those typical holding companies that holds a company that doesn't have a single dollar invested in the State of Michigan. It owns no property in Detroit or in the immediate vicinity, yet it has the nerve to spend the nickels and dimes and dollars wrested from its rate payers elsewhere, in order to charge me, as well as my colleagues in the City Administration, with endeavoring to destroy the capital investment of the stockholders of this huge corporation. For your information I am entering into the record of these proceedings, gentlemen, a copy of that advertisement, together with a Federal Trade Commission report on one of Associated's typical "inside" financing deals. (Advertisement and report entered and marked Exhibit "A").

In glancing down the register of the municipal officials in attendance here, I have estimated that not less than 10 million consumers of gas, artificial as well as natural gas, are represented at this conference. We have with us, however, representatives of other vital phases of the gas industry, who will be asked to express their views.

Several weeks ago the American public read with amazement a statement by the Secretary of the Interior, Mr. Ickes, that one billion cubic feet of natural gas is being permitted to escape into the air each day in the Texas Panhandle. That amount of natural gas, my friends, is equivalent in energy to more than four times (4.2%) power generated by the Wilson Dam at Muscle Shoals. If transported as it should be to the existing eager markets, *it would be ample to supply the daily requirements of every domestic and commercial gas customer in the United States.* The *Chicago Tribune*, in asking for an exercise of New Deal emergency powers to stop this enormous waste, has compared it, in its disastrous effect, to the daily removal of thousands of train loads of black earth from the Illinois and Iowa prairies and the dumping of that soil into the Atlantic ocean.

Therefore, in sending out the call to this conference, I felt that someone from the Texas Panhandle who has a story to tell and is eager to tell it should be invited here. Thus, we have in this assembly Mr. Charles Keffer, attorney for the Panhandle Conservation Association, who will speak for the land owner and the natural gas producer, representing the bedrock of the industry, and who are seeking in every possible way to conserve that precious resource.

But we are interested not only in the conservation and economic production of natural gas, but in its low-cost transportation to market by private enterprise. I have, therefore, urged Mr. Frank P. Parish, president of the Missouri-Kansas Pipe Line Company, to be present here and relate the story of his company's futile

efforts to bring cheap natural gas to our cities, free of control by those twins of intrigue, the Wall Street banker and the monopolistic holding company official.

I heard a publisher of a very interesting paper say that there are no two sides to any question, there is only one side, and that is the inside, and Mr. Parish knows the inside. He knows the problem of the producer; he knows the problem of the consumer, he knows the problem of the pipe line owner, he knows the problem of financing them; *he is exhibit "A" against the ruthlessness of dominating influences in the gas business.*

By asking Mr. Parish to speak to us, we can answer the charge made to one member of a city's delegation here, who was confidently informed that this conference has been called chiefly to extricate Mr. Parish's independent enterprise from its difficulties. I want to say emphatically that as public officials we have a duty to interest ourselves in every problem that affects so directly the welfare of our citizens. *We are bound to co-operate in revealing to the public the sins of an industry for which the rate payers and the investors must atone.* But in seeking the enforcement of existing laws to protect our citizens, our appeal will not be effective, unless the authorities of the neighboring state (Indiana) join in this earnest endeavor by supporting this conference, when we ask the President of the United States and the Senate of the United States to investigate the evidence already at hand.

When that evidence is presented publicly to an investigating committee of the U. S. Senate—then and only then will the public utility operators cease their greedy and relentless aggression against the American people, then and only then will the independent producers and independent transporters of natural gas be given their rightful opportunity to market their gas, end its enormous and tragic waste and, what is particularly important to us, *bring about a drastic and necessary reduction in gas rates to many millions of people.*

When that investigation gets under way, we may safely expect that many rate-gouged cities along the pipe line highways will be restored to their rightful position as "free markets," and will be able to purchase adequate gas supplies at low costs from independent sources. As examples of the opportunities that await us when the blight of Monopoly is lifted from the natural gas industry, consider for a moment the State of Wisconsin and the City of Detroit. Wisconsin is the *only* state between the Rockies and the Alleghenies that is *totally* without the use of natural gas, while the City of Detroit, although the largest American city close to natural gas pipe lines and supplies, yet is powerless to obtain it at a *fair and honest price.*

As president of the Detroit City Council I have been active for some years in endeavors to bring an adequate supply of natural gas to Detroit. Although for 35 years we have been within 65 miles of the vast Columbia Gas & Electric Corporation pipe line system, the Columbia interests have made no sincere and honest attempt to supply natural gas at Detroit. Instead they have employed their ill-gotten millions either to *buy up independent competition* which sought a franchise to supply natural gas to industries, or to *wreck another independent enterprise which could have brought gas to our gates.* We have encountered the Columbia's evil influence even in the natural gas fields of north central Michigan where, I am reliably informed, they told an independent producer that "Columbia is the only logical company to develop Michigan's natural gas field, and if and when we get ready, we will do so." In the meantime, gentlemen, cities of Michigan are paying exorbitant rates for gas when, in some instances, it would be possible to bring natural gas from nearby fields to a city gate at a price of approximately 12 cents per thousand cubic feet.

A few years back, in 1930, some people from Texas and some bankers conceived the idea of building an industrial gas pipe line from the West Virginia and Kentucky fields to the City of Detroit. In a very short time they signed contracts with the Detroit factories for the sale of forty-seven million cubic feet per day. They had their contracts signed, and the City of Detroit actually welcomed them, but when they got into the City Council to ask for their industrial franchise for their line, they immediately ran up against the Columbia Gas & Electric Corporation. They were told by a principal officer of Columbia Gas & Electric that "*if they thought Columbia would permit them to dig a ditch across the state of Ohio, they were crazy.*" And then when the franchise was asked for, the Columbia crowd became frightened. The next day their Board of Directors passed a resolution authorizing the proper Columbia Subsidiary to construct an extension of Columbia's system from Toledo to Detroit, ostensibly to head off the threatened competition. Shortly afterward, Columbia bought out this independent enterprise for approximately \$12,000,000, and *stopped the City of Detroit from getting any natural gas.* And mind you, right at the very time they were proposing to extend

a pipe line from Toledo to Detroit, they were telling the Ohio cities in this area that *there was not an adequate supply in the eastern gas fields.*

The City of Detroit's search for a natural gas supply suddenly took a new turn, however, with the release last month (Dec. 5, 1934) of a statement by Senator Gerald P. Nye, of North Dakota, in which he charged that public utility holding corporations through secret agreement among them, have "*sold down the river the entire population of cities and states,*" so far as gas rates are concerned. Senator Nye's statement was based on his study of a brief submitted to the Wilmington, Delaware, Chancery Court by Frank P. Parish and other stockholders of his company, in their objections to a proposed settlement of the Missouri-Kansas Pipe Line Company receivership. The Senator charged that a monopolistic combination of the Columbia Gas & Electric Corporation, Standard Oil (New Jersey) Co., Cities Service Co., and of several other individuals and concerns have wrecked the Missouri-Kansas, in order to stop its construction and operation of the Panhandle Eastern Pipe Line from Texas across the States of Oklahoma, Kansas, Missouri, and Illinois to Indiana and toward Ohio and Michigan.

The Common Council of the City of Detroit instructed its corporation counsel, who is here with his special assistant, to look into the records of the hearings held at Wilmington, Delaware. In the study of those records we found a startling confirmation of the Federal Trade Commission's charges against public utility holding companies, for those Wilmington records reek with all the vices of vicious Monopoly in the natural gas industry, namely "fraud, deceit, misrepresentation, dishonesty, breach of trust and oppression."

For example, we found this virtual perjury by one J. H. Hillman, Jr., Pittsburgh banker and a Missouri-Kansas creditor who later leagued himself with the Columbia interests. When asked: "Why didn't you sell gas to Detroit; didn't you investigate it?", this individual replied: "*We investigated and found there was no market.*" Now, mind you, gentlemen, *during the very time Mr. Hillman's alleged investigation was taking place, and during the very moment he was committing this perjury, the City of Detroit was extending open arms to any natural gas company which would bring us an adequate supply at a FAIR and HONEST price.*

So, my friends, when you consider Detroit's inability to obtain a natural gas supply from a pipe line company which is *verging on bankruptcy for lack of sales*, as against the achievement of the Mayor of Columbus in obtaining 1,000 or 1,100 B. T. U. gas for 48 cents per thousand cubic feet, you can understand the urgency of our request for a conference in this city. Will you believe it when I state that a Columbus home owner, if he could buy sufficient natural gas at 48 cents per M could pipe it to Detroit, sell it to the gas company there, and make it available to Detroit home owners at a lower cost per heat unit or per therm than they are now paying? And remember, it can undoubtedly be proved that a price of 48 cents is *still too high* for Columbus citizens to be compelled to pay.

I believe that the ultimate results of a Senatorial investigation into the natural gas industry will be, or could be sufficiently far reaching to make Columbus' 48 cent the AVERAGE rate rather than the startling EXCEPTION, for natural gas for all the large cities of the United States available to the pipe lines.

Senator Nye has charged that the natural gas "barons" have sold us "*down the river.*" We have with us, and I repeat that he is here by invitation, Mr. Parish, whose Panhandle Eastern Pipe Line enterprise was wrecked merely because he sought to do that which any American should be allowed to do in order to sell his product. The sworn testimony given at Wilmington, and unchallenged by the gas barons, discloses that Mr. Parish's company was expressly forbidden by the Columbia crowd to sell any natural gas north of a certain line, for the reason that such territory "belongs" to Columbia.

When, may I ask, has the American public surrendered its sovereignty and become subject to these gigantic and greedy monopolies, whose vampire veins swell with blood sucked from the economic body of the nation?

These are the conditions we want investigated by the U. S. Senate, not through long tedious months of scrutinizing the industry's records but by a direct and slashing attack upon the Frankenstein of money lust which the natural gas barons have themselves created. This is the challenge which we must hurl among the lawmakers of the nation. These are the flagrant violations of the common laws, state laws, and federal laws—*laws that are violated a thousand times a day*—which the Cities of America must inscribe in indelible ink on the daily memorandum pad of the Attorney General.

Frankly, my friends, the average American citizen has good reason to be frightened when such colossal evasions of responsibility by law enforcement agencies can occur. Washington has held a Crime Conference to inaugurate a concerted drive against low crime in low places; *isn't it time for another Conference*

to consider the High Crimes that are occurring unchecked in the High Places of this nation?

I am amazed when I stop to consider this whole subject. As one who has been in public life for many years, in the State Legislature, as Sheriff, as Postmaster, as Mayor, as President of the Detroit City Council, I cannot help but wonder why this great important issue of obtaining honest utility rates has been handled so loosely and so carelessly. Our experiences are all identical. Your city or mine asks for a rate cut and before we know it we are in the courts, and once there, the cases drag for years and years, *without a single ruling decision anywhere which would enable a city and a necessary utility to adjust its own rate.*

As excuse for not bringing natural gas to Detroit and lowering rates, the gas company replied that it was *unable to obtain a firm contract for a supply*, yet when the City of Detroit looked into the testimony given at Wilmington it discovered that natural gas pipe line interests who could supply Detroit, were claiming *a lack of market for their gas.* Even today I found a news item to the effect that Kenton, Ohio, is advertising for someone to supply natural gas to that community at a fair price.

The full report on our corporation counsel's investigation will be entered into the record of this conference, along with copies of the statement released by Senator Nye. What I have related, however, is not only representative of your own experiences but it points to the tremendous task before us. *The Cities must band together and pool their strength on the matter of honest gas rates, not merely for aggressive action, BUT BECAUSE THE NEED FOR A COMMON DEFENSE AGAINST A COMMON ENEMY DEMANDS IT.*

The power lobbyists invade our Common Councils, our Legislatures, our Congress with an effrontery that is astonishing. The Natural Gas Barons, particularly, scornfully flout the laws, and *even seek to use as tools those who should enforce the laws.* There is but one weapon for our use in combatting this modern Dragon; we must Organize. Consider the fine work in the field of relief that has been performed by the U. S. Conference of Mayors. I feel it my duty, as one who served in that organization, to pay high tribute to that Conference, and particularly to its president, Mayor Daniel W. Hoan, of Milwaukee, whose representative Mr. Bohmann, is here today, and also to Mr. Paul V. Betters, director of the organization, who is with us here. It was on the suggestion of Mayor Hoan and Mr. Betters, that the City of Detroit accepted leadership in calling this conference, and Mayor Hoan's public statement to the press in this regard should also be a part of this record and I hereby enter it.

The U. S. Conference of Mayors gave the Cities a relief program where they had none before, and it compelled adequate distribution of federal relief funds. So, today, we have many, many cities without a utility program—*particularly, without a gas rate program.* I hope that our meeting here today will provide an organization and the basis for supplying such a program, because *I am confident that millions of dollars can be saved to our gas rate payers if we act with a forthright and concerted purpose.* Before we quit this assembly hall this afternoon, I hope that a resolution committee will have been appointed, and that at tonight's session we shall memorialize the Senate of the United States, to the end that the Senate will at once conduct a penetrating investigation of unlawful monopolistic practices in the natural gas industry. Since that is the principal purpose of this conference, let us keep it constantly before us.

Now, gentlemen, let us hear an answer to the oft-repeated assertion of the natural gas barons that there is an insufficient supply of natural gas for our cities. We will ask Mr. Charles Keffer, of Amarillo, Texas, attorney for the Panhandle Conservation Association, to address us. Mr. Keffer.

GAS PRODUCERS: "HELP US PIPE OUR GAS TO YOUR CITIES AND THE WASTE OF ONE BILLION FEET PER DAY WILL END!"

Address by Charles Keffer, Attorney for Panhandle Conservation Association

Mr. Chairman and Gentlemen: The Panhandle Conservation Association was created for the primary purpose of conserving the natural gas and oil resources of the northwestern part of Texas, and to aid and assist in exploiting the natural gas resources, particularly. *We need market outlets, and the more that we can get, of course, the better situated we are. That means a great deal of money to us in royalties and employment, and in a great many different ways.* I do not and have never represented any of the gas pipe companies that serve this section. I am not here, however, to condemn the gas pipe line companies, because our interests are common with theirs. Mr. Parish's company, as well as other

companies, have spent millions upon millions of dollars in projecting lines into that area which gives us a market for waste product, and has done untold good so far as our local situation is concerned.

Now we have in the Panhandle of Texas approximately a million, three hundred fifty thousand acres of known natural gas reserves. Those wells are very productive. Their capacity will average anywhere from five million to perhaps eighty or ninety million cubic feet of natural gas (daily open flow) per well. *It is the largest known gas reserve in the world.*

Now there has been constructed into that field some eleven lines, but not all come this way. Four or five lines serve Dallas, Ft. Worth, and areas in Oklahoma, and western part of Texas, but there have been four large lines built to the northwest, to the north and to the northeast out of that area. The combined carrying capacity of all of those lines is about eight hundred million cubic feet of natural gas per day. Those lines up until this time have taken an average of only *four hundred million cubic feet per day*. In other words, the pipe lines drawing gas from that area now have a non-used daily capacity of approximately four hundred million cubic feet of gas. If that additional gas can be transported into this area, and to other areas in the northern and middle western part of the United States certainly we are in favor of anything to help that situation. *We need more markets.*

Now is the gas available for that purpose? Most assuredly. We have a situation there, a situation I suspect you gentlemen can hardly conceive of. You have got to see it to really appreciate what is happening down in that area.

We have a billion cubic feet of gas literally blowing into the air every day of the year; one thousand million cubic feet every day. Now it is hard to visualize a billion cubic feet of gas. It is something you can't see very well, although believe me, you can hear it. This billion cubic feet, from the standpoint of heat, is equivalent to approximately 166,000 barrels of crude oil literally running down the creeks every day of the year. I don't know just what that would be in bituminous coal. You can figure that out yourself. I haven't done that. I believe I am right, am I not, Mr. Parish, in saying that 22,000 cubic feet of that gas is equivalent to about one ton of ordinary bituminous coal in heat value, or B. T. U. content? An ordinary mathematical calculation will show you just what that means in the waste of our natural resources, for you are interested from the standpoint of your citizenship in this country.

In the Panhandle area there are now unproduced but known oil reserves of approximately 750 million barrels of oil. The only way on earth that that oil can be produced economically or can be produced at all, you might say, because otherwise the cost of production would be so much the oil wouldn't be worth it—is through the expansive force of this gas, for *it is natural gas that pushes oil through the sand to the well bore* where it may be taken out or removed by artificial means. *When this gas reservoir is gone, our oil is also gone.* Not only have we lost our gas, which is bad enough within itself but, in addition to that, we have lost the second largest oil reserve in the world. There is only one larger—the East Texas field you have all heard so much about.

So this matter of natural gas conservation is a national problem. It is one of extremely serious importance to us who live down in that area, because our entire industrial and economic, I might say even our social life, is dependent upon the continued existence of that oil and gas field. When that is gone, we are back to a cattle ranch country, just as we were before that oil and gas field was developed. That is one reason why I have been personally willing to come this far to talk to you gentlemen about our problem, and to ask your aid and your assistance in solving that problem.

Now that gas waste is directly important to your cities, too. The life of that field measured at the present production is sixteen years. We had originally sixteen trillion cubic feet of gas stored in that reserve; we now have between eleven and twelve trillion, so over four trillion of it is already produced. *We are producing it at the rate of two billion a day* classified as follows:

- A—One billion feet and a little over is actually going into the air there, after the extraction of a very small amount of gasoline, about three-tenths of a gallon to a thousand cubic feet;
- B—About 450 million is burned there for the purpose of making carbon black
- C—About 400 million cubic feet is going to the gas pipe lines;
- D—As much as 150 million per day is used as fuel in the operations of the oil leases and other enterprises in the field.

That accounts for a little more than two billion cubic feet per day, 750 billion or three-fourths of a trillion per year. Assuming that there is twelve trillion still

in reserve, we have a life expectancy of not to exceed sixteen years at the present rate of production.

But here is a serious factor I want you to consider. *The gas production in the Panhandle has almost doubled in the last twelve months*, since these gasoline extraction or "stripper" plants began to operate, and if the gas waste in the Texas Panhandle isn't stopped now, you may expect in another twelve months that *the production of gas will again be doubled in our area*.

If so, the field has a life expectancy of not more than eight years, instead of sixteen years. Whenever that happens, Mr. Parish and his company and all other companies that have large gas reserves down there and have spent many millions of dollars to acquire them, are going to be compelled to go into the stripping business and pop gas into the air as an absolute matter of getting what little they can out of their property. Because if they don't get it, the strippers are going to get it, and the inevitable result will be that our great gas reserve may last only four or five years longer. I don't think I am an alarmist when I make that statement.

Natural gas migrates through the sands from a high pressure area to one of a low pressure, just exactly like water running downhill. When you produce a large volume of natural gas from a reservoir such as the Panhandle field, which is all one common geological structure, you immediately start a migration of the gas to the low pressure area. Thus, it is entirely possible to open wide one well on the high point of that structure, and eventually it will drain pretty well the entire structure. So you realize the importance of stopping "stripping." If wouldn't be so bad if "strippers" just took their own gas, but the average stripping plant in sixty days takes all the gas in its acreage, and from that time on it draws on *its neighbors' gas*, thus depleting the entire reserve.

Now the question has been raised as to the characteristics of this gas which is wasted, is it sour or is it sweet? At least five hundred million cubic feet is sweet, because there are stripping plants, using sweet gas only, that do consume daily more than five hundred million cubic feet. The "sweet" gas waste would probably run as high as 60%, maybe as high as 75% of the total. Therefore, I would estimate from 600 million to 750 million of the gas that is blowing into the air down there is sweet gas. So far as depletion of that reserve is concerned, however, it wouldn't make any difference whether you are taking sweet gas or sour gas, because every time you take a cubic foot of gas out of there you affect theoretically the entire reserve, by reason of this tendency of gas to migrate from one area to another. As for sour gas, much of it is only slightly sour, and all you have to do is to "scrub" it to make it fit for domestic use, by extracting its hydrogen sulphate content. Someone asked me this morning what scrubbing would cost, and I stated that *in quantities it could be done probably for a quarter of a cent per thousand cubic feet*.

Now with reference to that waste problem, I think I am conservative when I make the statement that two things are apparent and in which you are just as directly interested as we are. One of them is that *you never will get another line of any consequence into the Panhandle field so long as this waste continues*, because the owners would have to amortize it over such a short period of time on the basis of the present waste, so you see that it is necessary for you and for us to stop this waste if we can, and to stop it before it is too late.

The other matter is the tendency in recent years, not only of governments in an international way, but of State governments, through taxation, to discriminate against the products of another State. The coal miners some time ago proposed a bill to tax Texas natural gas five cents a thousand cubic feet, equivalent to almost one dollar taxes per ton of coal. Its purpose was to prevent us from selling gas to you and prevent you from buying gas from us, because the differential there was such that we couldn't afford to transport gas to you and compete with coal. Something worse than that almost happened in Illinois. I am advised the Senate of the Legislature there actually passed by an overwhelming vote a tax against gas, assessing natural gas at fifteen cents per thousand cubic feet. You probably know about that.

Mr. FRANK P. PARISH. It didn't pass.

Mr. KEFFER. It didn't pass the House, but passed the Senate. The thing I am talking about is the trend in that direction. If taxes of that kind are actually levied, these coal producing States might just as well forget all about natural gas, because you can't transport it from Texas any considerable distance and compete with a tax like that. I didn't know the Panhandle gas got this far east until I got up here; I thought somewhere about Indianapolis was as far as it got. I have learned that much right in this meeting. I had no idea Ohio was a potential consumer of Texas natural gas, but *I am glad that she is*.

Now I think that is important to all of us to avoid such discriminatory taxes; a tax on natural gas would simply mean that the domestic consumers of coal are subsidizing the coal industry, or the other way, *the small domestic consumers of gas are absolutely bearing the burden*, and I defy you to make anything else out of that character of a tax.

In conclusion, I want to say once more that *we are vitally interested in securing better outlets for our gas. MORE LINES IF WE CAN GET THEM.* We are also very vitally interested in seeing that the present lines that we have there are **LOADED TO CAPACITY**.

Again I want to thank you for having been so patient in listening to me so long.

Mr. DYKSTRA. What is your average price for gas at the wells?

Mr. KEFFER. The average price in the Texas Panhandle, so far as these lines are concerned up here, is four cents. There is some gas over in Wheeler County sold for two cents per thousand cubic feet to the Lone Star and the United Gas Companies.

Mr. DYKSTRA. What would the producers be willing to sell this waste gas for that is going into the air?

Mr. KEFFER. You would think the strippers would give you what goes into the air, if you ran a pipe line down there to get it, as they realize now in the extraction process about *a fourth of a cent* a thousand cubic feet for that gas under the most favorable conditions, but if you went down there to buy it they would try to get at least four cents, and argue with you a long time about four cents, because *that is how the thing all started, really. The gas companies were not buying gas, except over in Wheeler County, over there where a two cent price prevailed.*

Mr. LEE. Are you in favor of putting the pipe lines devoted to the interstate transportation of natural gas under the jurisdiction of the Interstate Commerce Commission?

Mr. KEFFER. Frankly, I would have no objection to that. I think there would be a great deal to be gained both from the standpoint of the gas companies and of the citizenship generally. *I can see a danger, a very grave danger, in having every state utility commission from here to Texas trying to regulate an interstate pipe line.* I think it would be better for you, the ultimate consumer, and better for the pipe line company, if one central body, such as the Interstate Commerce Commission, would regulate that carrier *from one end to the other.* To my mind it is desirable. I am expressing my individual opinion upon that.

Mr. WENZEL. What do you mean when you refer to the stripping process as affecting the reserve of gas; what do you mean by that? Please cite an example.

Mr. KEFFER. Strippers are called that because they strip the small amount of natural gas carried in the dry gas—extract it, in other words—through an absorption process and they then permit the balance of natural gas to escape into the air, and they retain only the small volume of gasoline. Now that affects the reserve because of the enormous quantity of gas that is utilized for stripping. *In fact, there is one stripping plant down there connected with about thirteen wells, drilled on about 1,200 acres which alone strips and pops into the air every day 220 million cubic feet of gas.* That causes a low pressure area there, gas from all sides immediately begins rushing in there, and keeps on going in and out, until soon a very much larger area than their own reserve, many times larger, is depleted by this one plant.

Mayor METHEANY. Do not the landowners on whose land these wells are producing have any control over the waste of this gas?

Mr. KEFFER. No, not at all; they are entitled only to a royalty interest, based upon the valuation of the gas that comes out of the well. The gas really belongs to the owner of the lease, the title has passed to him with the exclusive right of operation. The only thing the landowner has is his equity interest.

Chairman SMITH. The reason for the low price of gas and the **LACK OF A DECENT PRICE FOR THE PRODUCER COMES THROUGH THE FACT THERE IS NOT MARKET FOR IT.** Isn't that true?

Mr. KEFFER. That is right, yes, sir. The more markets we can get, the more likely it is that the price of gas will increase. However, there is always an economic question there, and that is this, I suspect the reason that price is low in the Panhandle is one reason why we have the large pipe lines in there. *The gas is worth, in the final analysis, what they can get for it at Chicago.* Take a given point, less the cost of the transportation, and if there is anything left, that is what the gas is worth at the mouth of the well.

Chairman SMITH. Under present conditions there is a very strange matter of relationship between the price in the field and in Chicago. It costs about two cents a hundred miles to pump the gas, is that right?

Mr. KEFFER. I have heard that figure used.

Chairman SMITH. That is the figure of all the engineers, when you get gas at the Texas well, for two cents a thousand cubic feet——

Mr. KEFFER. Four.

Chairman SMITH. There is considerable disagreement as to the price, Mr. Parish——

Mr. KEFFER. Mostly two cents per thousand cubic feet.

Chairman SMITH. Would you say three cents would be a fair average?

Mr. KEFFER. Yes.

Chairman SMITH. Now, to transport a thousand cubic feet a hundred miles costs two cents and——

Mr. KEFFER. In a pipe line that is efficiently operated.

Chairman SMITH. To Chicago is how many miles?

Mr. KEFFER. About 800.

Chairman SMITH. That would be sixteen cents for transportation, and would that cover amortization and profit?

Mr. KEFFER. It would cover all charges, including profit.

Chairman SMITH. And including profit. So then the gas gets into Chicago for nineteen cents?

Mr. KEFFER. That is correct.

Chairman SMITH. What does it cost to distribute gas a thousand feet?

Mr. MECARTNEY, *Attorney, Chicago*. In Chicago, you have a different situation. The Insull Company there has brought a line from Joliet, Illinois, and pays the pipe line company an average of 32 cents. The pipe line company's books may show a loss, because they are not being efficiently operated today, but as Mr. Keffer pointed out, the pipe lines are not operating to capacity. *The City of Chicago could take the entire capacity if they put it into use, and instead of having an investment which is only earning a 50% return on their possible income, they would return nearer 100%; then you get close to your two cent figure.*

The reason for not operating at capacity is known to everyone familiar with the business. *THEY DON'T WANT TO DISTURB ANYWHERE THE PRICE STRUCTURE THEY HAVE SET UP.* Isn't that true, Mr. Parish?

Mr. PARISH. That is so. There is more to it that will come out in a natural way as we go on.

Mr. HAY. Assuming you get control of, or eliminate the waste you complain of, what do you figure the life of your supply would be?

Mr. KEFFER. Of course that would depend entirely upon the withdrawals. Assuming that the present pipe line facilities were loaded to capacity, that is carrying, say 750 million a day, and allowing about 450 million for carbon black, you would have about twelve hundred, and giving about 150 million for lease requirements, both oil and gas, you would have one billion 350 million a day. We figured a while ago two billion would run sixteen years. Just roughly speaking, a billion three hundred fifty million, I suspect, would run somewhere around 25. I have made a hasty calculation there. You can see the basis I have calculated. You can check that out accurately.

Mr. LEE. That applies only to your West Texas fields; you have still got your East Texas field?

Mr. KEFFER. Yes, absolutely, I am just talking about the Panhandle field.

Mr. ALLENSWORTH. Our calculation shows that if the present line facilities out of your Panhandle fields were operating at full capacity, which should be around nine hundred million, *your fields would have a life of approximately 65 years; that is only that one field.*

Mr. KEFFER. Of course, that is excluding stripping waste and gas for the carbon black.

Mr. BRACHER. This line that comes up near Indianapolis, is that line adequate, might I ask, to serve other communities up in there?

Mr. KEFFER. So far as I know, it is. I just read a statement by Mr. Parish today about that. He knows a great deal more about the line. I am not taking sides one way or another. It is a matter of little concern to us, *except it ought to be carrying more gas. I don't know what the reasons are. Maybe Mr. Parish has the correct reason. Maybe it is market outlet, or something else.*

Mr. BRACHER. Do you have any information to show whether it would be cheaper to produce gas in Texas than it would be in West Virginia or Ohio? I mean at the field?

Mr. KEFFER. I expect gas would be cheaper in Texas at the well, because the wells are much larger in Texas than they are in West Virginia and Ohio. I don't know what it costs to drill a well here, but it costs around \$20,000 to drill a well in the Panhandle, and you may get a twenty million foot open flow per well, or you may get a whole lot bigger than that. But assuming an average of twenty million

feet with a \$20,000.00 investment, and assuming it costs as much to drill a well in West Virginia and you get only a five million foot well; you see, the difference in the drilling cost alone makes a considerable difference in the cost of the gas at the mouth of the well.

Mayor WILSON. You said that the pipe line from the west had reached Ohio?

Mr. KEFFER. I learned that just today. I thought the Panhandle reached its terminus somewhere around Indianapolis, until I arrived today. I understand it has reached Ohio, is that correct?

Mr. PARISH. There is an extension built by Columbia Gas & Electric to the Columbia-Ohio system.

Mayor WILSON. From Terre Haute?

Mr. PARISH. Approximately from Terre Haute to near Muncie, Indiana. The Texas fields are now connected with the Columbia's Indiana-Ohio system.

Mr. KEFFER. Is that all? I would like to answer any questions.

Chairman SMITH. Yes, and thank you, Mr. Keffer.

NATURAL GAS EXPERT: "THE POTENTIAL SUPPLY OF EASTERN NATURAL GAS GREATLY EXCEEDS IMAGINATION!"

Discussion by H. R. Allensworth, Gas Rate Engineer

Mr. ALLENSWORTH. Mr. Chairman and gentlemen. First may I answer a question. The Panhandle Eastern line coming across the states is connected into the lines of the Columbia Gas & Electric at Muncie, Indiana. There is a trickle of Texas gas coming into Columbus, Dayton, Cincinnati, and other cities in this area.

Now as to the available supply of West Virginia and Kentucky gas, *the actual available supply today exceeds the demand.*

One of the largest producers operating in West Virginia, namely the Hope Natural Gas Company, a subsidiary of the Standard Oil Company, is very much perturbed and worried at this time, because it has an immense investment with little or no market comparatively. That is, the market today does not take from its system anywhere near the capacity for which it is designed. *The potential supply in this territory very greatly exceeds the imagination of even some who have been actively engaged in making investigations in the Cleveland gas rate matter.* We had Mr. David B. Reager, of Morgantown, West Virginia, a very noted geologist, who is intimately familiar with gas and oil production through the Appalachian district and who has studied extensively the gas land and properties of Ohio, West Virginia, and Kentucky. Mr. Reager made the statement, under oath, that *every county in Ohio is a potential gas-producing county or territory.* The mere fact gas has not been produced in any one locality is no indication that the gas is not there. Gas has been produced in this territory commercially for over fifty years, and for fifty years the gas producers have been admonishing and warning the people the supply was about to give out. *Today there is more gas in sight than there has been at any time during my fifty years of experience.* I don't know of any way I could tell it to you plainer.

There is much available gas-producing territory in West Virginia and Kentucky and in Ohio that has not been drilled. In addition to that, there is much territory drilled that is not producing.

Chairman SMITH. May I ask a question? If the potential supply is there, why hasn't it been drilled; is it because there has been no market?

Mr. ALLENSWORTH. I can't answer that. Through a great many years of litigation that is what we have been trying to find out. The best answer I can suggest is that the available supply today, as I said originally, exceeds the present-day demand in this territory. There would be no urge, consequently, for developing these other resources.

Chairman SMITH. Until these markets are opened and until these monopolistic efforts on the part of Columbia Gas are ended, there isn't going to be any development in those fields.

Mr. ALLENSWORTH. That is my suspicion, yes. May I suggest this, that the prevailing price of gas at the well in this territory is from 15 to 18 cents a thousand.

Mr. LEE. I would like to ask if there are reports available to this organization concerning the reserves in these various eastern fields. *That would be of considerable value and could be gotten out and the information contained in them provided in a concise form to the various cities in this general territory that would be interested.*

Mr. ALLENSWORTH. There is such information available, but the only source that I know of is the testimony and exhibits of the geologists who have testified in these rate proceedings. I don't know of any place you will find that in governmental proceedings that will be of any help to you.

Mr. LEE. By co-operating with you such information could be had and made available?

Mr. ALLENSWORTH. Mr. Shapiro, all of that information is available to these cities? Mr. Reager's testimony—

Mr. SHAPIRO. I am sure so.

Mr. LEE. If all these monopolistic concerns could be checked and the West Virginia fields drilled to produce, it would bring down the gas rate considerably, wouldn't it?

Mr. ALLENSWORTH. It would bring down the distribution rates, yes; I don't think it would reduce the well price appreciably.

Mr. LEE. It seems to be undisputed you have the gas supply there undistributed, that you have the market; then you are confronted with the practical situation of tying up the two with present lines.

Mr. ALLENSWORTH. Yes, sir.

Mr. LEE. How are you going to get the capital invested to build the pipe line to the market from the field where the present line is not already existent, unless your community, or the gas company in your community, pledges itself to take the gas after the line is built? In other words, from the viewpoint of the man in the street, there are the gas reserves, here and in West Virginia and Texas, and we have got the market in Detroit, but we haven't got the line. How are we going to get the line built, who is going to finance it; and do the financing and the building of the line require, as a prerequisite, an executed contract between the local distributing company and the producers and the pipe line company? How are you going to get them together?

Mr. ALLENSWORTH. My opinion would be you would have to have a contract of that nature before anybody would venture to build a line to Detroit.

Mr. LEE. I would also like to ask this question, how are you going to get the local manufactured gas company, which is controlled by interests that may be adverse to its coming into Detroit, to agree to take this new product?

Mr. ALLENSWORTH. I don't think you ever will bring about that, *until such movements as you gentlemen are starting here today succeed.*

Mr. LEE. What do you mean by that? The machinery of it, how would it work out? How could we further that cause by this movement?

Mr. ALLENSWORTH. I mean a Senatorial investigation, government investigation; the facts should be so plain that the City of Detroit will demand it and *the government would enforce or could enforce*—I am not a lawyer, don't misunderstand me—the distribution of natural gas. However, I look upon that as being a more legal question than engineering, and I am not a lawyer.

Mr. LEE. Then you think the thing for us to do primarily is to get some centralized authority like the United States Senate, which has the broad power in investigating to furnish, through the medium of one of its investigating committees these facts to the public?

Mr. ALLENSWORTH. I believe so.

Mr. LEE. On the theory, if it is disclosed by such an investigation that there are tremendous supplies and great markets, that they will operate to produce a price to get the two together, some way or other?

Mr. ALLENSWORTH. That would be my opinion, and corollary to that, I would suggest—not advising, but just as a suggestion—that one of the things to be considered is to place all interstate gas pipe lines under the *control and regulation of the Interstate Commerce Commission*. You all know by statute that interstate pipe lines are exempt from control.

Chairman SMITH. Which is wrong.

Mr. ALLENSWORTH. Which is wrong, in my opinion.

Mr. LEE. I would like to ask this question of one who has had experience. If the rates for gas service were reduced to such a rate as would necessitate a larger volume of business, in order for the utility to earn a fair return on its investment, *wouldn't that naturally force the utility to develop the market that it has?* Isn't that a natural consequence?

Mr. ALLENSWORTH. Yes, that is perfectly natural; it follows in all lines of merchandising and service, and I addressed myself to that specific question in our first Columbus Gas case. We estimated if the company accepted the rate Council had prescribed in its ordinance, it would increase the sales in the City of Columbus 10% in volume. Both the Master and the Court accepted that estimate and made its finding upon that basis. We have the same problem, and I have testified to that in the Cincinnati Gas Rate matter that is now before the Commission.

Mr. LEE. May I ask one more question? When you started your agitation in Columbus, did you have the pipe line at your door, or did you have to bring it here?

Mr. ALLENSWORTH. The city was being served with natural gas.

Mr. LEE. So, your contention is this, then, a city that hasn't got the pipe line at its door must endeavor to get one constructed thereto?

Mr. ALLENSWORTH. In that case; yes, sir.

Mayor MILLER. We have one pipe line running into Louisville which was sufficient to meet our needs a good many years ago. The difficulty we are having is that the gas company claims, if they build another pipe line to meet the needs in the four winter months, they will have to make a contract *to buy that amount of gas throughout the balance of the eight months*. We use about 50% of the total supply during the four winter months. Is it possible to make a contract where you can buy an extra supply to meet the winter demands, without being forced to take that for the other eight months?

Mr. ALLENSWORTH. Such contracts are in effect; *they are usually worded the other way*, that they will purchase so much during the winter months, and not less than a certain amount in the summer months.

Mr. McCARTNEY. The gentleman from Detroit here has asked a very practical question—how the consumer and the producer can be put together. I think that the committee is headed in the right direction toward the only practical solution of that problem, namely, *through Congressional legislation*, to permit the construction of the type of line that is necessary in most of these cases. To connect cities with the present termini of the pipe lines that exist, or with the new ones that might be built, those lines necessarily will be interstate lines. As soon as that is realized, we see at once that the only authority by which property could be condemned for those lines is authority which is *vested in the Government of the United States*, and must be delegated for that purpose through the Congress. A Senate investigation would certainly lay before the public and before Congress the facts which should govern any such procedure, *whereby a company could be organized with POWER TO ESTABLISH A LINE BETWEEN DETROIT*, for example, and the terminus of that present line in Indiana, which reaches back into the Texas fields. If the power would exist for the organization of a company that could compel the construction of an interstate line of that type, *the City of Detroit would be in a position of originating the financing of such a company, because they control the consumer; they control the market for it. At the present time they are not bound up by franchise with the present company*. I think that it is the only hope, that a municipality should be in a position to force a private utility to build a line, or face the competition of a city-controlled line.

ST. PAUL: "THE FEDERAL GOVERNMENT MUST HELP CREATE COMPETITION OR WE WON'T GET CHEAP GAS!"

Public Utilities Commissioner HERMAN WENZEL. There is legislation to be submitted to the next session of Congress that I think will be the solution of this problem. *We up north who are endeavoring to get natural gas, also find ourselves up against it, the monopoly problem*. We endeavored to get the Northern Natural Gas pipe line interested in coming to the city of St. Paul, where our franchise expired last year. I wrote Mr. Fischer, of Chicago, and suggested that they send a representative up there, in order that we could discuss this question with them. I never got a reply to the letter. I had the utility engineer contact the company and he never got a reply. Then later on we did get a reply. They wanted to know what purpose we had in asking for a representative, and we advised them. They never came. The reason for it was plain to us. *The power of monopoly has a controlling interest over that line*. They wanted a 20-year franchise under their terms for submission to the voters, and they did submit the question at the last November 6th election, but the voters defeated the 20-year franchise.

I came here all the way from St. Paul with the hope that this organization, representing these different cities, would study this problem in order that we may adopt a constructive principle and whereby we can get results. To answer the question brought up by the gentlemen from Detroit. "Here is the supply and here is the demand, how are we going to solve this problem?" As I understand it, the proposal is as follows: A group of businessmen can organize a corporation, they make the application to the Federal Government, or the Public Works Administration for permission to construct such a line; they will be permitted to earn 6% on the investment, and it will be regulated by the Federal Government.

We have an abundant gas supply in the Montana fields; in the Twin Cities there is a great market for it. *Men interested in bringing that gas to our market find it impossible to finance the construction, because the banks are connected with the monopoly in such a way they will not offend the monopolies.* And the only way it can be done, as I see it, is through a proposal whereby the Federal Government will assist in creating some competition.

We are paying \$1.14 a thousand cubic feet at St. Paul. Columbus, as I understand it, is paying 48 cents a thousand. We really pay 90 cents a thousand cubic feet, but that is a much lower valued gas, I think it is 850 B. T. U., so if you consider it against 1,100 B. T. U. the rate runs around \$1.14 a thousand.

The Federal Government, as I understand it, is interested in creating work to build these lines; at least these gentlemen in Washington who are proposing this plan believe it will help solve part of this unemployment problem; and I think we could well afford to investigate that proposal. If we agreed with it, we could go on record and urge Congress to pass it in order to create this competition. *We know that is the only way we get gas piped into the community we represent.* And I am for the Federal investigation of the monopoly which should come first, because when the people of this country understand just how the monopoly operates, it is going to be much easier to pass legislation to build these lines, as has been proposed.

INDIANAPOLIS: "WE ARE INTERESTED IN NATURAL GAS SUPPLY IN TERMS OF THE FUTURE, AND WILL COOPERATE"

Mayor JOHN W. KERN. Indianapolis is interested in obtaining natural gas. However, we are about to acquire the Citizens Gas Company property, as a municipal utility, so have postponed obtaining natural gas until the city itself could get it *through its own gas company.* Therefore, while we are interested in natural gas and natural gas supply, we are interested not in terms of the present so much as in terms of the future.

Mr. Smith has referred to certain events which have happened in Indianapolis, and has referred to a corporation organized with a capital stock of \$500, which was anxious to obtain a franchise to service the county surrounding Indianapolis. The Legislature passed an act recently, preventing them from coming there and obtaining that franchise, so that so far as that is concerned, we are in very excellent shape.

You are interested in knowing whether we want natural gas. The answer is "Yes; we want natural gas, but we want natural gas to come *through the municipal gas plant*, and be distributed through the municipal gas main."

Indianapolis is interested in co-operating with you in obtaining a full Senate inquiry into the matter. But just one practical suggestion. I think we all have been interested by the discrepancies in rates among the different cities. I would suggest to you that a secretary be appointed by this gathering here, or perhaps Mr. Paul Betters will circularize the larger cities and obtain information as to rates charged, the minimum rate, and the rates as they progress, together with the B. T. U. content of the gas. I think that would be very valuable information. I know it would be to Indianapolis. Because when we do get to the point of making connection with a natural gas pipe line, it will be very valuable for us to know what is the usual price charged to other cities in the United States. I would suggest that would be very helpful, that this body call on perhaps Mr. Paul Betters and ask the United States Conference of Mayors to circularize the cities of America who are at least members of that organization and get the prices charged for gas in those localities.

Mr. ———. I think I can also speak for the Legislature, which is now in session in Indianapolis. There was a Senate and House Committee appointed to come over here and meet with you gentlemen here today, and I find that the members of that committee have not found it possible to come, but I am sure I speak their mind.

I know that not only will the city be glad to co-operate, but *the State Legislature, through a proper committee will be glad to co-operate, and the State administration, I know, will be glad to co-operate.*

CINCINNATI: "IT REQUIRES FEAR OF GOD, F. D. R., AND SENATE COMMITTEE TO GET UTILITY OFFICIALS TO ACT!"

Mayor RUSSELL WILSON. Mr. Chairman and Mayors and Gentlemen, I must confess that before we had received the invitation from Mr. Smith, we had considered in the Public Utility Committee of the Council, of which I happen to be

chairman, Mr. Rose vice-chairman, and vice-chairman Inglis, the third member, the probability of making an appeal to Washington and importuning the proper Senate Committee to intervene, because the trouble with all these negotiations that *every city bears an isolated relation to the public utility*. While this matter was under consideration, I received the communication from Mr. Smith, showing me that a spirit of *protective camaraderie* had been developed among cities, and that it was possible for American cities, *instead of operating individually, to meet and compare their community interests*.

We in Ohio are very grateful to the City of Columbus, because Columbus was really the pioneer in battling the public utility in the effort to secure lower rates; and when our contract with the Union Gas & Electric Company had expired, we regarded Columbus as an exemplar, and we retained the same expert, Mr. Allensworth, and his associate, Mr. Blundon, in prosecuting our case before the Public Utilities Commission.

I might say in response to the invitation, we have a representative committee; at least there are present here today the city manager, Mr. Dykestra; Mr. Gilman, the Director of Public Utilities; Mr. Rose, and Mr. Inglis and myself. I have told Mayor Worley we completely concur with your purpose, and that I register the vote of the City of Cincinnati in support of any resolution passed here, invoking the aid of the Federal Government in *securing justice for the cities of the Middle West*.

The only way to secure action is by *acting together*. If we are going to be isolated communities the public utilities will play *one city against the other*, as they have already done in the advertisements which have been read to you. *And I have found in my negotiations with public utilities that it requires the fear of God, Franklin D. Roosevelt, or the Senate Committee to secure any action from the utility officials*. And so I simply pledge you the co-operation of the city of Cincinnati, and, if you have a moment to spare, I should like our city manager, Mr. C. A. Dykestra, to say a word to you in behalf of the administrative part of the city.

MR. DYKESTRA. I like your views on one subject that comes to my mind here, the apparent playing of *one city against another*, as disclosed by these advertisements. Doesn't that indicate that possibly the only efficient, successful, constructive measure would be the declaring of the pipe line company as also being a public utility, *so they couldn't refuse to serve one city*?

We have an average rate of 66c. It comes down, however, and does not do the way the Cleveland and the Toledo rates do—penalize the user of the larger quantities. Ours is a mixed supply; that is, our local company gets a certain amount at Hamilton, mixes it, and brings it into Cincinnati that way. We also have a local plant owned by the same company, which is used for mixing at certain times of the year, two or three or four months, as the case may be. I should say we are about 75 to 25—75 natural and mixed with 25 artificial gas—which puts our B. T. U. content to about 850 or 900. We have not as yet made a settlement on the gas rate. All I can say, in general, is that I agree with whatever Mayor Wilson said about this because I know his general attitude on this problem. *Cincinnati unquestionably wants to go with you other cities in finding what are the facts*. We are always ready to find the facts, and I am sure we will be glad to join you in getting the facts on this.

CHAIRMAN SMITH. Mayor Wilson, in the interest of enlightenment, I would like to call your attention to a series of newspaper articles appearing in the Cincinnati Post beginning in February and March of 1931. There are two or three subjects taken up; one is a plea for lower rates that would command an industrial sale and an additional supply of natural gas to serve the then demand; also, a preference for a supply of straight natural gas, instead of manufactured gas. Do the contents of those articles express the desire and wishes and opinions of yourself and the administration? *Then there is a market for more gas there?*

MAYOR WILSON. We think so.

MILWAUKEE: "A COMBINATION OF INTERESTS IS BENT UPON STIFLING COMPETITION IN NATURAL GAS"

HENRY A. BOHMANN, Waterworks Superintendent. Mr. Chairman, I am wondering if you would be interested in the gas rate in the city of Milwaukee.

Here is the schedule: For the first 400 cubic feet or less, fifty cents; for the next 6,600 cubic feet per thousand, seventy-five cents; for the next 13,000 cubic feet per thousand, seventy cents; next 80,000 cubic feet per thousand, sixty-five cents; next 100,000 cubic feet per thousand, sixty cents; next 1,800,000 cubic feet per thousand, forty-five cents; over 5,000,000 cubic feet per thousand, forty cents. That is for gas used during any one month throughout the year. The standard of

gas supplied by the Milwaukee Gas Light Company is fixed by the Public Service Commission of Wisconsin.

The average B. T. U. per cubic foot should be 520 for the year, but never less than 500 B. T. U. at any time. Sample must be taken within one mile of distribution plant. Tests made about 17 or 18 times per year by chemists of Health Department.

The Mayor of Milwaukee is very much interested in the gas question, and this resolution has been presented to the common council. The resolution reads as follows:

"Resolution calling upon the United States Congress to conduct an investigation.

"Whereas it has been publicly disclosed through court records and otherwise that there is a combination of interests, national in scope, bent upon stifling competition in the natural gas industries; and

"Whereas it has been shown that the piping of natural gas into Milwaukee would be of great value to the citizens of our city;

"Resolved by the Common Council of the City of Milwaukee that it is the sense of this governing body that the Congress of the United States, through its proper committees, conduct an investigation into the acts and practices of the natural gas utilities, their subsidiaries and financial interests, with a view of determining whether or not Milwaukee or other central western cities have been deprived of natural gas through the work of monopolistic corporations.

"Further Resolved that the city clerk send certified copies of this resolution to United States Senators La Follette, Duffy, and Nye, and Representatives Cannon and O'Malley."

I have every reason to believe that this resolution will be passed by the Common Council.

HAMTRAMCK: "WE WANT TO PROTECT OUR PROSPECTS OF OBTAINING A
CHEAP NATURAL GAS SUPPLY"

Mayor JOSEPH LEWANDOWSKI. Mr. Chairman and gentlemen, I have received much information in coming to this conference this afternoon. I have listened to the various speakers who are well versed in this gas problem, and I have gathered much information. I naturally am interested as Mayor of Hamtramck in protecting Hamtramck's prospects of obtaining an adequate supply of cheap natural gas. The city of Hamtramck, as has been told you by the chairman, is the fourth largest city in the state of Michigan, having some 60,000 population. The city of Hamtramck is an industrial city, also. The inhabitants are of the hard-working class. Now a *great hardship is worked upon them due to the inability of many families to pay the exorbitant rates they are now paying for gas service.* So in attending this conference, Mr. Chairman and gentlemen, I want to go on record and pledge my most hearty support to whatever measures this organization may take in bringing about lower gas rates, especially for my community. I am interested in the city of Hamtramck, so that this gas can be brought to our homes and industries at a much lower rate than we are paying at the present time, and I assure you anything I can do for this organization in bringing about this I shall only be too glad to do.

TOLEDO: "THEY THREATENED TO TAKE OUR GAS SUPPLY ON TO DETROIT, BUT
WE WEREN'T SCARED!"

Mayor SOLON T. KLOTZ. Mr. Chairman, I just want to say a few words that might be comforting to the Detroit gentlemen. We have had a running fight with the gas people for several years, for more than several—in fact, we have one now. On several occasions, when we have had a talk about new contracts and so on, *they have told us that if we didn't look out, they would cut off the natural gas from Toledo altogether, and send it over to Detroit,* where they could get a good deal better price for it. As we are about at the end of that pipe line, that is important to us. It hasn't scared us very much, but at the same time it is an argument, and a very valid argument. But I just threw this out to you Detroit folks. There is hope. We, the Cities, may run the whole blame business yet!

MISSOURI-KANSAS PIPE LINE CO.: "OUR COMPANY TRIED TO SUPPLY CHEAP
GAS TO YOUR CITIES, BUT CONSIDER WHAT HAPPENED TO US!"

Address by Frank P. Parish, President of Missouri-Kansas Pipe Line Co.

Our Missouri-Kansas Pipe Line Company wanted to expand with the industry, so, after developing properties in the Kansas City area, we sought to develop western Kentucky, which was known as "wild-cat territory." Those associated

with me were experienced and able in the production side of this business and were successful in western Kentucky. We have today invested in the neighborhood of six and one-half million dollars, and have developed approximately a daily open flow of five hundred million cubic feet, with a line from Kentucky now extending as far as Terre Haute, Indiana. We have been unable to date to sell much of that gas. Before we realized the full danger that faced us in this industry, we had also launched upon the major enterprise which developed to be the Panhandle Eastern Pipe Line Company from the Panhandle of Texas to Indiana.

Our objective then was St. Paul and Minneapolis. We had acquired the necessary gas reserve in Texas to support such a project, and had engineers survey all of the markets from the field to St. Paul and Minneapolis, and we also had our men negotiate with these gas companies in the Twin Cities, as well as in all the cities along the line, with the exception of Omaha, which is a municipally owned system. They were not interested in buying any gas from us whatever. *Omaha was an exception, being municipally owned and apparently pretty ably managed.* Later it did look as though we might get the contract to serve Omaha.

There was another situation developing about that time. O. D. Seagraves proposed to build a line from the Kansas fields to Omaha. (I want to say that the Hugoton field, of Kansas, where our line draws much of its gas, has developed to a point where we now believe that it will approximate the gas reserve of the Panhandle of Texas; so there you have another major reserve and we have not yet found the limits of the entire area.) Seagraves had several carloads of pipe shipped, which spurred others to action. The Lone Star Gas Company, the United Light & Power Company, and the North American Light & Power Company, of which L. E. Fischer was executive vice-president and general manager, also desired to build a pipe line where both Seagraves and our company wished to build, so they bought Seagraves out, and built the Northern Natural Gas pipe line. As part consideration, the Northern Natural agreed to purchase from the Seagraves producing interests 60% of the pipe line's requirements at 7½¢ per thousand cubic feet at the well. That is too high a price, so you understand how those who are getting service from that line are paying the cost of acquiring the Seagraves' interest. That, also, would bear some investigation, in the sense that the true facts should be known. *I can't believe it is honest public service when, in order to control and dominate an industry, ridiculous prices or investments are saddled upon the public.* The Twin Cities today are served by one line only, and they have no competition.

About the time, L. E. Fischer came to me and offered to purchase from us all of the natural gas requirements of the Illinois Light and Power and the Missouri Light and Power companies, which were their holding companies. His offer necessitated, if we accepted it, changing the direction of our line so that Indiana and Indianapolis, instead of Omaha and St. Paul, would be our objective.

We did negotiate the contract. We were glad to get it because we had invested our money in the necessary reserves and here was already a sound market in Missouri and Illinois, and there were other ample markets. We were financing the construction of the Panhandle Eastern pipe line by the sale of an attractive issue of common stock *which had no notes, bonds or preferred stock ahead of it.* It was a sound financing structure. Our sales were so successful that it was beyond our physical ability to fill purchase orders promptly. Thus, on the 14th of June, 1930, we had 800,000 shares on order and in process of delivery, representing over thirty millions of dollars. The delivery of those shares, together with the funds already on hand, would have provided more than sufficient money to build the entire line, approximately forty million dollars, without a dollar of indebtedness. The properties our company acquired, its gas reserves in Texas, the pipe line it had to build, its right of way, are on the books at the actual cost.

On that day, June 14th, 1930, L. E. Fischer came to me in Chicago and told me that he had been subjected to a great deal of criticism for having entered into a contract with our company to buy gas from us for Illinois and Missouri; and that we would never serve them—service being subject to approval of the Utility Commission. He cited the Illinois Commerce Commission specifically, said that we couldn't get its approval, and further that we couldn't get the certificate of Public Convenience and Necessity to cross the State of Illinois. Fischer demanded that *our gas reserve be sold to Standard Oil (New Jersey) at cost, that all our pipe lines and contracts be sold to the Cities Service at cost, and that the proceeds be invested in the Northern Natural Gas Company.* He said we were to be eliminated from any activity in this business and, *if I didn't agree, the common stock market of Missouri-Kansas Pipe Line Company would be raided on the following Monday, the 16th.*

We had had considerable experience with market raids up to that time, but I am not going into details on that phase. A truce was arranged. I was to meet Christy Payne, vice-president of the Standard Oil (New Jersey) Company in New

York on the following Monday, but when I got off the train at New York the following Monday the truce had been violated, the raid was already under way and the market on Missouri-Kansas was brought down from 36¼ to 15 dollars per share. The delivery of the shares that had been ordered on the part of thousands of people failed, as they didn't care to take the shares at 36 when the market was 15 or thereabouts. So we found ourselves with obligations on our hands for the entire balance of construction costs (about 10 to 15 percent of the pipe line had now been built) and with our avenues for financing entirely shut off. Only the New York banks were left, and it was perfectly apparent that they wouldn't help very much. When I went to New York on June 16th I expected to stay a day, and I stayed two years.

I met Christy Payne that afternoon after the market had closed, and his first remark was, "*Well, how did you like it?*" I spent an hour and a half with him, but it was wasted time. At six-thirty I met with Mr. Phillip G. Gossler, president of the Columbia Gas & Electric Corporation. *I met with him at his request at his office.* He asked me if we would be willing to sell gas to Columbia at the end of our Panhandle Eastern line. I said "Yes, but we would much rather sell you a half interest and you help us finish it." That was on the 16th. One June 20th we made an option contract, giving Columbia the right to purchase this half interest for a period of time, during which they could send their accountants and engineers over our entire project. Mr. Gossler asked for two extensions to that option, stating that *Cities Service and Standard Oil had so threatened them (Columbia) that they could not afford to carry out the terms of the option unless they could pacify them in some way.*

Mr. Gossler thought he could do it. I granted two extensions; he asked for the third. In ten days I had construction bills to meet, totalling three million dollars in excess of the funds available. When I refused a third extension, Mr. Gossler spoke viciously and *told me every bank was closed to me, and did not I have sense enough to know I was finished?*

Well, we were not finished, but it certainly looked like we were. I had known the Central Public Service Company which, during a so-called reorganization, had acquired a number of gas distribution systems at very high prices, so high that they could never earn a proper return on the investment. *Harris, Forbes & Company were bankers for Central Public Service and much interested in our prospects.*

In order to save ourselves great embarrassment in default, we commenced immediate negotiations with them. The last extension to Columbia's option expired September 5th, 1930. On September 8th we had a contract to sell Central Public Service Company 51% of all the properties of Missouri-Kansas, but it wasn't very satisfactory. They were to pay in notes of Central Public Service, which weren't much good, unless we made them good through potential profits of our company. *We did get a loan of three million dollars for ninety days.* Because Harris, Forbes & Company were also bankers for Cities Service, I believed that they would probably turn both Missouri-Kansas and Central Public Service over to Cities Service. Such an act would be a violation of the conspiracy bargain among Standard Oil, Cities Service and Columbia, who had agreed not to rescue Missouri-Kansas. *When the existence of this Central Public Service contract was disclosed to Mr. Gossler, he became very excited and tried to reach me for three days by telephone. Evidently, he believed Doherty had double crossed him.*

On September 17th, we had a contract with the Columbia Gas & Electric Company to sell them 50% of our Panhandle Eastern Company, and Missouri-Kansas was to retain the Kentucky properties. *The terms of that contract were better for us than the terms of the option that Columbia had turned down.* The common stock of Panhandle Eastern went into a voting trust, comprising Mr. Gossler for Columbia, myself for Missouri-Kansas, and Mr. George Howard, president of the United Corporation (which owned 26% of Columbia). I accepted Mr. Howard because we couldn't agree upon anyone else and also because he was so obviously a Morgan-Columbia man that acts contrary to good faith on his part could easily be challenged.

I want to mention another matter. The original objective of Panhandle Eastern had been Indianapolis for the main pipe line. At the time we sold Columbia the half interest, only a part of the Indiana section was built. Some of the pipe was strung along the right-of-way. Columbia wanted to buy all the Indiana section and I was in no position to dictate. I understood the problems of the larger utility companies by then; Columbia wanted an intervening pipe line between the state of Ohio and their point of gas purchase from Panhandle Eastern, in order that they might get a contract between subsidiaries, so that *when the Texas gas reached Ohio its price would not be 18c, but something higher.*

When Columbia bought the half interest in Panhandle Eastern, it agreed to purchase from the line *twenty million cubic feet of Texas gas per day at 18c a thousand cubic feet*. That price, according to the partnership contract, would ultimately get as high as 26c. Missouri-Kansas likewise agreed to purchase a similar quantity. When the question of selling the Indiana section was taken up at a Panhandle Eastern board meeting a letter was read as the instrument of transmittal. I objected to the wording for fear that it might in the future be construed to mean we were conveying also the right to do business in Indiana. When Columbia finally agreed that the letter intended merely to convey the pipe line, and had nothing to do with Moka's right to do business in Indiana, I asked that it be made a matter of record. But the secretary said it had no place in the record, that the instrument spoke for itself. *It didn't speak for itself, and it did not go into the record.*

Two other vital matters had been testified to in the Chancery Court of Wilmington, Delaware, and were not denied by Columbia, whose representatives were present. One is that Mr. J. H. Hillman, Jr., Pittsburgh banker who helped finance Missouri-Kansas, told me that Indianapolis had been terribly stirred up by others who, in the interest of Moka, had sought to sell gas at Indianapolis. (Mayor Kern here will recall that our company had a number of industrial contracts at his city.) Mr. Hillman said that, because of resulting agitation, Columbia and he had been compelled to put Indianapolis back to sleep.

The other important matter is this, and we know his assertion is true: Mr. Hillman said that today there is an agreement between the Kentucky Natural Gas Company (which he dominates) and Columbia Gas & Electric to the effect that they, together, will attempt to obtain the contract to sell gas at Indianapolis, and that *when they get it, Columbia will supply seven-tenths of the requirements and Kentucky Natural Gas will supply three-tenths*. So you have no competition today for Indianapolis, Mayor Kern. Kentucky Natural and Panhandle Eastern, for the moment, are gone as competitors, but they won't be forever. During the Wilmington hearings, Mr. Bay even went so far (Mr. Bay has been in the operating side of this natural gas business for about thirty years; he is as able a man in the industry as anybody) in his attempt to defend Columbia for not taking more gas from Panhandle Eastern as to say to the court, if you please, *that since the Columbia system in Ohio has gas flowing west, and the Panhandle Eastern system has gas flowing east, Texas gas couldn't be taken into Columbia's Ohio lines because gas can't flow both ways in a given space*. The statement is too absurd for comment.

At the annual stockholders' meeting of Panhandle Eastern Pipe Line Company last March 1934, I presented to the voting trustees a statement, showing that Columbia had not taken gas from Panhandle Eastern, and that they should have taken it; that they advertised in Toledo the supply was inadequate and that they wanted to give Toledo a mixed gas. That advertising appeared in March 1929. Columbia bought a half interest in our Panhandle Eastern pipe line in September 1930. On October 9th of the same year, as Mr. Smith has already told you, an independent company petitioned the Detroit City Council for an industrial franchise. On October 10th, the next day, Columbia's executive committee met and directed its management to immediately build a line from Toledo to Detroit. How could Columbia do this, in the face of their advertising that there wasn't enough gas for Toledo? On October 30th, Columbia bought out the independent interest and got some more reserves, *but it never extended its Ohio system to Detroit*.

I pointed out during the Wilmington hearings that, if the rates now in force in Kansas City, Missouri, were applied to this Ohio territory, the result would be a demand for 290 million feet of natural gas daily. The assertion is based on the present consumption per meter per year in Kansas City, which is comparable. In fact, *Ohio cities are better markets for natural gas by reason of the fact that their industrial activity is greater*.

Unfortunately, the one thing Ohio cities have not been able to combat effectively has been the utility companies' contention of scarcity of supply. You are lost because you haven't the facts at your command. The way you are going about it now you probably will get the facts. So the gas companies prefer to give inadequate service and, *by the continual contention of an inadequate supply, they maintain a high rate structure*.

But consider what has happened in Kansas City. Back in 1927 a man by the name of Knorp endeavored to build a line there from Texas to take care of industrial demands. He obtained an industrial franchise and it looked like he was going through with it. Then the local Cities Service subsidiary decided it had better service those industries. All these years it hadn't sold any industrial gas, probably for fear that a demonstrated ability to do so would indicate an ability to sell

domestic gas more cheaply. So Cities Service built a new line and put in an industrial service. The result of this has been: (Comparing Kansas City with Cincinnati, for example.) In 1927, Kansas City consumed 5,112,000,000 cubic feet of natural gas; Cincinnati in the same year consumed about 12,128,000,000. In 1931, however, despite poor business conditions generally, Kansas City used almost thirteen billion feet, while Cincinnati's consumption was under thirteen billion feet. The result from this aggressive policy to the Kansas City Gas Company was *a greater profit than it had ever had before, an increase in house heating of 68.4 percent (which represented only a 16.7 percent degree of saturation) and, of course, an increase in industrial sales amounting to 750%.*

In fighting the monopoly I believe in using words from its own lips and I introduced them in evidence in the Delaware Court. To show you that this matter of lower domestic rates resulting from large volume industrial sales is not just an idea of mine, but is in practice, let me quote these excerpts from convention speeches:

The president of the American Gas Association, Clifford E. Page, vice-president of the Brooklyn Union Gas Company, said, in 1931, as follows:

"Indicative of our progress, it will be sufficient to state that a review of rate-making practices during the past five years indicates two trends of major significance: First, a more widespread appreciation and use of rates embodying a scientific formulation of fixed cost principles resulting in rates which are not only more equitable to the various classes of customers, but are better adapted to promote the gas business as a whole by distinct rates for special classes of service."

Then Mr. Page goes on to say how, in spite of the depression, the gas business has flourished.

Here also are excerpts from the address of F. A. Newton, chairman of the Commonwealth & Southern Corporation, a member of the Rate Structure Committee of the American Gas Association. This is particularly interesting because Commonwealth & Southern owns the Peoria (Illinois) gas company, which today is distributing more Panhandle Eastern gas than the maximum amount our company estimated they would ever use, showing that their Peoria policy is sound. How do they do it? Here Mr. Newton of the parent company speaking:

"A well designed rate structure should encourage greater use by present customers and add new business. *Large volume of sale and low unit costs mean lower rates.* Every company which not only recognizes this principle, but aggressively follows it, benefits not only itself, *but the public it serves.*

So I am not alone in this theory of lower rates, and you are not alone in it. Your gas companies know it just as well as you know it, and just as well as I know it.

There are other quotations similar in character, all lending very strong support to the reasonableness of the demand upon the part of all of you municipal officials for a lower rate.

A lower rate does not mean confiscation of property. A lower rate can mean more earnings, if you are willing to let the gas companies earn more than six or eight percent, or whatever limit is now placed upon them. They can earn more money with lower rates than they can with the higher rates, just the same as the Panhandle Eastern Pipe Line Company can earn more with sales throughout its system averaging about 22 cents a thousand cubic feet than at a higher rate; PROVIDED, however, that *the benefit of the lower wholesale price by the pipe line company is passed on to the consumer*, so that the pipe line obtains a good selective market, where it is not only selling a peak demand in winter but is selling to industries in the summer at the lower rate, thereby making it possible for the pipe line company to use its facilities somewhere near maximum capacity throughout the entire year. But if the local gas company buys gas at a lower price and then imposes upon the pipe line an impossible class of service, the cost of transporting natural gas from field to city is going to be much more than two cents per thousand cubic feet per hundred miles. *The benefits of a low city gate rate have got to be passed on to the consumers.*

But after I had demonstrated to the court in Delaware that there was a large market for additional gas in Ohio, Columbia's own territory, Columbia had this to say—please bear in mind now that Columbia had advertised in Toledo that its supply was inadequate and declining, and it had ignored Cincinnati's demands—Mr. E. Reynolds, Jr., Columbia's secretary, is recorded on page 1676 of the Transcript as saying to the court:

"An important factor in the decrease of earnings being greater than the decrease in output of sales of gas" (he is talking about the Columbia now)—"has been the fact that we have so many firm gas purchase obligations, I would say, also, thousands of them. And the gas purchased has become bigger, a much bigger

proportion to our sales than the gas produced. *We have shut down our own wells wherever possible, and worked out with these various sellers, independent producers, some of them large and some of them big corporations, from whom we purchase large quantities of gas. We have worked out with them, wherever possible within reason, to hold back our own gas.*"

Well, the gist of that testimony is that they now have too much gas and that they have had to give up many of their own leases. That is literally true. In the Moody's Directory I find that in 1930 they had 7,900,000 acres of reserve, and in 1933 they had 3,500,000 acres of gas reserve. And Mr. Reynolds goes on to say that Columbia couldn't buy any more Texas gas from the Panhandle Eastern, irrespective of the fact that Panhandle Eastern was going into bankruptcy, *because they couldn't sell any more.*

These Delaware court hearings were last September, gentlemen—September 1934. One month later we find Columbia still advertising in Toledo—and I was quite shocked at the ad Mayor Worley read—that there still isn't enough gas for all. This one in my hand says: *"When there is not enough for all, which one gets it?"* and in bold-faced type, *"There is not enough natural gas at present to meet all these demands."* Now this is October 24th, 1934, when Columbia was hardly out of the Delaware court.

Here is another Columbia ad, directed to its Ohio patrons. The caption reads: *"Both want this coat. Which one gets it?"*

And here is a threat to the City of Toledo, I quote: *"This winter, if local gas service should be crippled, it will be because other cities better appreciate the value of gas."*

If these actions aren't violations of the Federal Anti-Trust laws, I don't know what they are. And if, being possessed of knowledge of them, you don't make any complaint, Columbia is going to continue to "get away with it" forever.

I do not propose that they shall. Columbia is not going to get away with its proposed settlement in Delaware, that is certain. But we shall not stop there. What was testified to in Delaware respecting Detroit was perjury, for in spite of Mr. Hillman's statement that he investigated Detroit and found no market for gas there, Mr. Woolfolk of the Detroit City Gas Company contends that he has been trying to buy Panhandle Eastern gas for three years and hasn't been able to obtain it *because Columbia has asked too much for it—40 cents per thousand cubic feet.*

And when Mr. Murfin, director of the Detroit City Gas Company, is asked if 35 cents is too much, he says that it is too much. Yet I provided your chairman, Mr. Smith, with a copy of a memorandum agreement dated January 11th, 1932, between the United Light & Power (controlling Detroit City Gas Company) and the Columbia, which provides that they together are going to build a line from the end of the Panhandle Eastern system to Detroit, paying from 18 to 26 cents at the end of the line, and selling it to Detroit City Gas Company at 35½¢. United is to get all the Missouri-Kansas Pipe Line Company's interest in Panhandle Eastern and is to get all of our Kentucky properties. In other words, United and Columbia agreed among themselves *how they were going to divide up the assets of 22,000 Mokon stockholders who are looking to me for protection and who are going to get my protection.*

These discrepancies are entirely too glaring to be overlooked or allowed to go by, without your registering a complaint in proper form. Every page of the record our company has made is full of dynamite, and, since I recognize that you municipal officials don't want to stay here forever, I would like to know from you what you would like to have me do.

Chairman SMITH. We are coming back here tonight, Mr. Parish, and constitute ourselves into an organization to see if we can't get those things printed, and get them to the proper authority. I should say to the conference, that through the courtesy of the Indianapolis Times and Mayor Worley, we have been informed that Senator Nye has just announced to the Indianapolis Times at Washington that he proposes to introduce a resolution calling for a Senatorial investigation into the gas monopoly.

Mayor WORLEY. You had better read that. It says, *"If the Mayors want to aid."*

Mr. WENZEL, St. Paul. Mr. Chairman, may I just interrupt? I think that the information that Mr. Parish is giving us here is very beneficial, yet at the same time, *I think he has submitted enough facts to warrant any action we contemplate taking.* I would, therefore, suggest that we should arrange to have a mimeograph copy of these remarks made for each one of the municipal representatives here, so we can study it.

Chairman SMITH. I quite agree with you. I can't imagine how any public official anywhere, if he recognizes that this monopoly exists and how it operates, can do justice to himself or to the people that he represents, if he doesn't have this information.

Mayor METHEANY, Lima. Mr. Chairman, is this information going to be published?

Chairman SMITH. I imagine it will be. There will be some cost to it and I don't know whether the City of Detroit will be in a position to defray it. Perhaps if we could get a small contribution from each of the interested communities we could have it all printed.

Mayor METHEANY. I am Mayor of Lima, Ohio, and I would be glad to make a contribution right now to cover the cost of any copies necessary.

Chairman SMITH. Well, then supposing we proceed to get it all ready, and then ascertain the cost of it, and distribute that cost amongst the cities represented here?

Mayor METHEANY. That would be fine. Is there any organization here for the purpose of communicating with us?

Mr. LEE, Detroit. We are going to establish an organization tonight.

Mayor METHEANY. My name and the name of the city solicitor and so forth are on that sheet there, and if you will get any information to me, we will contribute whatever is necessary for the defraying of expense. The reason I am asking this is because we will hardly be here for the evening session, but I would like to be assured of the record of these proceedings today.

Mayor WORLEY. After listening to Mr. Allensworth tell us how much gas there is in Ohio, and when we find that *Lima is paying \$1.25 for the first 400 feet of artificial gas and \$1.05 for the next thousand*, I can understand your interest, Mr. Mayor.

Mayor METHEANY. We are paying \$1.05 for up to 10,000 feet with heat units running from 325 up to 456.

Mr. WENZEL. Mr. Chairman, may I make a motion? Before I do, I want to state it is ten minutes to six, and if the Resolutions Committee is to have the necessary time to draw up these resolutions so that we can consider them at eight o'clock, I think we ought to dispose of this matter. For that purpose, *I move that the incoming officers be instructed to prepare copies of all the minutes including remarks made by Mr. Parish and the Doherty telegrams, in order that we may have a copy, with a vote of thanks to Mr. Parish for giving us this information.*

Mr. PARISH. I may say that I will be very glad to go through this record and see that it contains everything that I have, and then go further to give you a brief outline that might be mimeographed. I know it so thoroughly that I can probably do it quicker than anybody else could. I would be glad to do that if you wish.

Chairman SMITH. And with the proper notation—

Mr. PARISH. Showing where every bit of information comes from.

Mayor METHEANY. Do I understand that the record is to incorporate the statements and telegrams, and so forth, of Mr. Parish?

Chairman SMITH. Mr. Parish says he has copies of the telegrams and will distribute them.

Mayor WORLEY. The record will contain those, too.

Mayor METHEANY. What I meant is, we wouldn't want just the minutes of the meeting without that record.

Mr. PARISH. I will place in the minutes of the meeting more than I have told you, and then I will go further; I will make a brief outline of what the minutes contain. I will outline the high lights which should go to the United States Senate and every place else.

Chairman SMITH. Gentlemen, may I urgently suggest to those of you that have come from near and far that you make it your business to stay here for the evening session, so that we may properly organize ourselves and get this thing going? I hope that every one of you that can will stay. I know Mr. Hay has got to leave, and some others, also, but we can put in a couple hours work tonight and get this thing properly organized.

Now the question before the house is the motion of Mr. Wenzel of St. Paul. All those in favor will manifest in the usual manner * * * Those opposed. * * * The motion is adopted and without objection we will adjourn until eight o'clock tonight.

(The meeting then recessed, to reconvene at eight o'clock.)

ST. LOUIS: "ONLY THE FEDERAL GOVERNMENT CAN GIVE US THE PIPELINE CONTROL THAT IS NECESSARY."

City Counsellor CHARLES N. HAY. Mr. Chairman and Gentlemen: I have been more than repaid for my trip over here by what has already been said at this conference. Mr. Smith and I had a little conference a while ago, in which we agreed to engage to an exchange of compliments for the edification of you men, and I now return his compliment by saying that one of the reasons I came over was to get a look at him. I have heard a good deal of him down in St. Louis and the fight that he has been making up in Detroit, as I have heard also of this magnificent fight here at Columbus, and all the results that have been achieved.

Ours is a long story and there are many angles of interest. Just now we are worrying a lot about our smoke problem in St. Louis. We have an ideal summer climate in St. Louis, as you gentlemen who have ever visited St. Louis in the summertime know, without my telling you, and if we could get rid of the smoke, we would have an ideal winter climate down there. We have at least a hospitable climate in St. Louis. We try to accommodate people from all sections of the country. We have the weather change every few days so as to accommodate those from the extreme south and the extreme north.

Just now we are particularly interested in the smoke question, and the gas question, of course, is vitally related to that. We were getting along very well with the gas company and with the gas rates or the gas conditions in St. Louis until a few years ago, when we were visited by a gentleman by the name of Munroe—Charles A. Munroe—of whom some of you have heard. This gallant gentleman came into our city one year, sojourned with us for a period of about two years, contributed not a dollar to the upbuilding of the plant that we have in St. Louis, but *by skillful manipulations succeeded in pumping about fourteen or fifteen million dollars of water into the valuation of the capital set-up* and left town, I think possibly in the daytime, but at least left town with a round sum of fourteen million dollars' profit, after he had sold out.

So far as the source of supply is concerned, we are in this situation. We have a gas line coming into St. Louis at this time. Some of our industries are being furnished straight natural gas from the Louisiana field, brought in by the Mississippi River Fuel Company. The Laclede Company is taking some natural gas from this concern. And for domestic and commercial purposes we are being furnished a mixture of natural and manufactured gas.

There is dispute as to the adequacy of that line to supply all of our St. Louis needs. I think it is questionable whether this company or this line could supply our needs, *if the local utility were disposed to acquire all the natural gas that they would be willing to furnish.*

My advice is that the Laclede Company is paying *in excess of thirty cents for gas at the city gates.* We are interested in this discussion here, for the reason that we would like to have another pipe line available to us. Mr. Parish's line, which he discussed this evening, runs about 68 miles north of our city. Mr. Parish has indicated to me, and I take it that there is no objection to my quoting what was said to me, that if he can be put in a position, or any concern can be put in a position through that line to serve us, *we can get gas at the city gates for something like 20 cents per thousand cubic feet.*

Recently a gentleman whose name I shall not mention, but who is the head of one of the big gas and oil companies of this country, came through St. Louis and told me that he was anxious to furnish natural gas for St. Louis, and that he had all the natural gas that the city could use for an indefinite period. He was then on his way to New York and was going to see some gentlemen who were controlling this pipe line that we have been discussing, the Panhandle Eastern, to see if he could make arrangements to have his gas transported through that line. *About thirty days later he called me long distance and said that he was sorry to have to call the deal off, and that he could not make the arrangements to have his gas transported through that line.*

There we are, easily within reach of the Louisiana field and of the Oklahoma field and of the Texas field, with one pipe line coming in, another one (Panhandle Eastern) within 68 miles of us, and *yet that gentleman testified to me that he could not get his gas transported through this line.* There is still another group interested in bringing natural gas to St. Louis who have been trying to make this same pipe

line available to them for the purpose of bringing natural gas into St. Louis, supplemented, of course, by a line from this Panhandle Eastern down to the city of St. Louis.

So we are interested, as I say, not only in a Senatorial investigation, but also in Congressional action. We want to see the fight carried on, not only until the facts are made known—in fact, I think we already have had in this conference a discussion of sufficient facts to lead us to the conclusion that what is imperatively demanded is *action by the Congress* which will be adequate to the placing of these pipe lines under *effective regulation* by the Interstate Commerce Commission, or some other body that can supervise and regulate the use of those lines.

The resolutions which will be offered in a few moments call not only for a Senatorial investigation, but for Congressional action, to the end that these pipe line companies may be placed under such effective regulation as only the Congress can give.

It is hopeless to talk about state regulation or municipal regulation. We cannot possibly regulate it. *We can't even investigate it as we should.* We are going to carry on a little investigation down in St. Louis in a few days, inquiring from our local utility and our Mississippi River Fuel pipe line officials as to why they are not giving us more natural gas down in St. Louis. We will not likely develop any great amount of facts, but perhaps make some contribution to the facts that have been disclosed here today. So that is our view of this situation.

I announced myself some two years ago as in favor, as far as our city is concerned, of municipal ownership and operation of our gas system in the city of St. Louis. In my personal opinion that is the only way we are going to solve our distribution problem in St. Louis. But if we are to bring gas down somewhere near to the price it ought to be, we are going to have to have natural gas delivered at the gates at a cheaper price than we can hope to have it delivered when we are dependent upon one line, under the control of one line of interests.

I was somewhat moved here today when I heard the statements by Mr. Keffer, from Texas, and also by Mr. Parish—moved by the picture of this tremendous waste of natural resources. It is shocking beyond words to think that *countless millions of cubic feet of gas are going to waste in one part of the country when people in other parts of the country want that gas for use, domestic, commercial, industrial.* The only agency in this country that can give us the control necessary to the bringing of what is going to waste to the service of people who need that service is the Federal government, and I trust that we may be able to secure action by the Congress to that end.

CITIES REPRESENTED AT ORGANIZATION MEETING OF THE CITIES ALLIANCE AT
COLUMBUS, OHIO, JANUARY 28, 1935

City	Represented by—
U. S. Conference of Mayors.....	Paul Betters, Executive Director of the Conference, who attended at the request of the Conference President, Mayor Daniel W. Hoan of Milwaukee.
Ohio Municipal League.....	Henry W. Worley, Mayor of Columbus.
Wisconsin League of Municipalities.	Adam F. Poltl, Mayor of Hartford, Wis.
Cincinnati, O.....	Russell Wilson, Mayor; Edward B. Timbus, Vice-Mayor; E. Dow Gilman, Director of Public Utilities; C. A. Dykestra, City Manager; C. O. Rose, Councilman.
Detroit, Mich.....	John W. Smith, President of Common Council; Raymond J. Kelly, Corporation Counsel; James H. Lee, Assistant Corporation Counsel; Eugene I. Van Antwerp, Council Gas Committee.
Dayton, O.....	F. O. Eichelberger, City Manager; E. E. Hagerman, Director of Finance; Herbert S. Beaulieu, City Commissioner; Charles Bracher, Member of City Commission.
Lima, O.....	A. L. Metheany, Mayor; Lawrence Long, Treasurer; W. P. Snook, Water Department; C. W. Long, City Solicitor.
Indianapolis, Ind.....	John W. Kern, Mayor; Floyd J. Mattice, City Attorney; H. L. Dithmer, Utilities Director.

Columbus, O.....	Henry W. Worley, Mayor; J. S. Davies, City Attorney; H. R. Allensworth, Consulting Engineer for City.
Toledo, O.....	Solon T. Klotz, Mayor; Thomas H. Gardner, Councilman.
Chicago and other Illinois cities....	Malcolm Mecartney, attorney representing corporation counsel of Chicago, in charge of gas rate litigation.
Louisville, Ky.....	Neville Miller, Mayor.
South Bend, Ind.....	Geo. W. Freyermuth, Mayor.
Hartford, Wis.....	Adam F. Poltl, Mayor.
Hamtramck, Mich.....	Jos. A. Lewandowski, Mayor.
Wheeling, W. Va.....	Gordon P. Fought, Mayor-Manager.
Milwaukee, Wis.....	Henry P. Bohmann, Superintendent of Waterworks.
Cleveland, O.....	Ezra Shapiro, Law Director.
St. Louis, Mo.....	Chas. M. Hay, City Counselor.
St. Paul, Minn.....	Herman Wenzel, Commissioner of Public Utilities.
Crestline, O.....	George F. Kuzell, Mayor.
Delaware, O.....	Veley E. Main, Mayor.

OTHERS IN ATTENDANCE BY INVITATION

Charles H. Keffer, attorney for Panhandle Conservation Association, Amarillo, Texas.
 Frank P. Parish, President of Missouri-Kansas Pipe Line Company, Chicago.
 Gilbert F. Wagner, attorney, representing Mo-Kan Stockholders group, Chicago.
 W. Wright Gedge, owner radio station WMBC, Detroit.
 Lucas J. Beecher, Associate Editor, Toledo Blade, Toledo.
 Donald Slutz, City Hall reporter, Detroit News.
 Robert A. Butler, reporter, Indianapolis News.
 Tipton Blish, reporter, Indianapolis Times.
 Luke J. Scheer, Washington.

RESOLUTION MEMORIALIZING THE SENATE AND THE CONGRESS OF THE UNITED STATES RE THE NATURAL GAS PROBLEM

At a meeting of the representatives of the following cities: Detroit and Hamtramck, Mich.; Milwaukee and Hartford, Wis.; Louisville, Ky.; St. Louis, Mo.; Chicago, Ill.; Wheeling, W. Va.; St. Paul, Minn.; Cleveland, Cincinnati, Toledo, Columbus, Dayton, Lima, Delaware, and Crestline, Ohio; and including Mayor Adam F. Poltl, Hartford, Wis., representing the Wisconsin League of Municipalities; Mr. Paul V. Betters, Director of the United States Conference of Mayors; Mayor Henry W. Worley, Columbus, representing the Ohio League of Municipalities; held at Columbus, Ohio, on January 28th, 1935, the following resolution was adopted:

WHEREAS, The cities of the Middle West constitute a great market for natural gas and are vitally interested in securing an adequate supply for domestic, commercial, and industrial use at reasonable rates; and

WHEREAS, At a meeting of the representatives of eighteen of the larger cities of said section, facts and information were submitted tending to show that *vast quantities of natural gas are going to waste in Texas and other gas fields*, and further tending to show that companies engaged in the production and transportation of natural gas have entered into monopolistic agreements and practices *which result in stifling competition, in the restraint of trade and in fixing unfair and unreasonable prices of natural gas, and forcing numerous cities to use mixed gas*; and

WHEREAS, There is at present no effective regulation of the production and transportation of natural gas and can be none except by act of the Congress:

THEREFORE, Be it resolved by this conference of Municipal Officials:

That we memorialize the Senate of the United States *immediately to cause to be made a full investigation into the entire natural gas industry*, and that we memorialize the Congress of the United States *to take such action as may be necessary to place the said industry under effective regulation* to the end that the people of this country may enjoy the use of this great natural resource at fair and reasonable rates, and be it further resolved that a copy of this resolution be sent to the United States Senate and the House of Representatives.

RESOLUTION ORGANIZING THE CITIES ALLIANCE

WHEREAS representatives of eighteen major mid-west Cities met in Columbus, Ohio, the 28th day of January 1935, for the purpose of discussing the natural gas situation; and

WHEREAS it is desirable that a permanent organization be formed of those cities desiring to obtain natural gas at a fair rate, in order that information may be compiled and efforts co-ordinated; therefore

BE IT RESOLVED, that we form an association of Cities thus interested, to be known as The Cities Alliance, and that we name officers, Chairman, Vice-Chairman, and Secretary, and that we name an executive committee composed of said officers and one representative from each of six other municipalities; and

BE IT FURTHER RESOLVED, that the Executive Committee so selected be authorized to take steps to contact other interested cities, complete the organization of these efforts, and do everything to carry out the intent and purpose of this resolution.

INDIANA LEGISLATURE SUPPORTS ALLIANCE PLEA FOR MONOPOLY PROBE BY U. S. SENATE—ASSERTS THAT A STATE IS "POWERLESS TO APPLY THE NECESSARY AND PROPER REMEDIES TO AFFORD ADEQUATE PROTECTION"; ASKS INTERSTATE CONTROL

COMMON COUNCIL, CITY OF DETROIT

JOHN W. SMITH, PRESIDENT

FEBRUARY 3, 1935.

HON. E. CURTIS WHITE,

*Chairman, Gas Investigation Committee, Indiana Legislature,
Indianapolis, Indiana.*

DEAR SENATOR: Due to developments here in Detroit I find it impossible to be in Indianapolis. Therefore I am writing you at length with the hope that my letter will serve as well as my presence.

As you may already know we in Detroit have been endeavoring to secure for our city an adequate supply of natural gas for the past four years. To date we have met with no success whatever despite the evidence of an abundant supply, part of which is going to waste in the Panhandle of Texas, one billion cubic feet being blown into the air daily.

That there has been a conspiracy on the part of the large utility interests to prevent the distribution of natural gas in the States of Michigan and Indiana must be apparent to anyone who would familiarize himself with the reports of the Federal Trade Commission's investigations of these utilities, and the testimony taken in the Delaware Chancery Court with respect to the proposed settlement of J. H. Hillman, Columbia Gas and Electric Company, and the Missouri-Kansas Pipeline Company.

Pursuant to the resolution of January 15, passed by the Common Council of the City of Detroit, Corporation Counsel Raymond J. Kelly made a study of the evidence filed in the Delaware Court, part of his findings being contained in his report to the Council, copy of which is attached.

In the course of Mr. Kelly's investigation he found much evidence of importance to the State of Indiana and the City of Indianapolis indicating that the Anti-Trust laws of the State of Indiana as well as the Federal Anti-Trust laws have been violated in a most brazen manner. I will not attempt to cover Mr. Kelly's findings fully in this letter but believe it sufficient to quote the following which includes the page reference where the testimony can be found and the transcript of the record.

DELAWARE COURT OF CHANCERY HEARING

Page eight:

"13. The position of Columbia Gas, as stated in their own words (Shaw Deposition 16-17) (832-3), was that—

"It was definitely agreed that any gas to be taken under such contract by Columbia Gas would be for supplying Indianapolis and Northern Indiana territory, extending to Detroit and other points in Michigan and connecting with existing pipe lines in Ohio. It was likewise definitely agreed that any gas to be taken under such contract by Moka would be only for the purpose of supplying gas to the southwestern part of Indiana, through Terre Haute, and south to Nashville, Tennessee" (Res. Ex. 1). This oral agreement provided further that Columbia Gas was not to sell gas in the territory of Moka and Moka was not to sell gas in the territory of Columbia Gas, which resulted in an ultimatum of Panhandle

Eastern by Mr. Crawford, its president, that Panhandle Eastern "hereby notifies both Columbia Gas and Moka that it does not consider that either of them is entitled to gas under such contract, if the gas so supplied is to be used in violation of the above agreements of for the purpose of interfering with the distribution of gas by the other party. (Res. Ex. 1.)"

Pages nine and ten:

"(1) Mr. Gregory, a Panhandle Eastern director selected by Columbia Oil, put Panhandle Eastern on record as definitely refusing to permit Moka to sell gas in the City of Indianapolis, which was in the territory allotted to Columbia Gas, joining with Mr. Munroe, another director selected by Columbia Oil, in the statement that the contract with respect to the sale of the 20,000,000 feet of gas would not be carried out unless Moka agreed that it (Moka) would not sell any gas in Indianapolis, irrespective of where they got it. (Res. Ex. 24) (Shaw Deposition p. 19 and 20) (842)."

Page eleven:

"(5) Mr. Gossler wrote to Mr. Hillman on April 13, 1931, in part as follows: 'We are now in receipt of clippings from the Indianapolis Star (morning paper), and the Indianapolis News (evening paper), of Wednesday, April 8, announcing that on the preceding day the Mayor and other representatives of the City of Indianapolis had met with representatives of the Kentucky Natural Gas Company, at which meeting there had been a discussion of the possibility of the latter Company building a pipe line to bring natural gas to Indianapolis.

'We can only construe this as an act of aggression on the part of your associates against the best interests of Columbia which, if pursued, we should have to resist to the full extent of our resources and ingenuity' (Res. Ex. 35) (1707)."

"'I had felt reassured from our last conversation with you that we could look forward to an entire discontinuance of such acts, unfriendly to us, by the interests with which you are now associated, and I trust that you are still of the same point of view and can now assure me that there will be no further continuance of this proposal or resumption of such activities' (Res. Ex. 35) (1709)."

From the above it is apparent that Columbia has attempted to divide the territory and eliminate honest competition in that territory chosen by themselves as their field of service. The Mr. Hillman referred to in Mr. Gossler's letter of April 13, is the J. H. Hillman, Jr., who now controls the Kentucky Natural Gas Company and is the same Hillman referred to in Mr. Kelly's report to the Detroit Common Council.

The following will give further enlightenment on the subject.

Page thirty-three:

"That part of the pipe line that was partly in the ground and partly on the ground, extending east from the Illinois-Indiana state line (to Indianapolis) was sold to the Columbia Group (805). At the time of the approval of this sale it was made clear by Mr. Parish that Moka was not giving up its rights to do business in Indiana or any other territory and never had agreed to (871). Mr. Munroe and Mr. Reynolds admitted that the instrument conveying the physical pipe line was not also intended to convey the rights to do business. Mr. Parish demanded that this interpretation be made a matter of record at the meeting of the Board of Directors."

Page forty-six:

"—78. Early in 1934 Mr. Hillman stated to Mr. Parish in discussing Indianapolis that, as a result of Mr. Maguire's securing some sort of authority from the receivers (999) to negotiate with respect to selling the 20,000,000 feet, that Maguire had stirred up Indianapolis and that "he (Hillman) and Columbia had had to put it back to sleep (1000)."

This and much more would be available to you by calling before your committee Mr. Gilbert F. Wagner, 3216 Bankers Building, Chicago, Illinois, who is the attorney of record for certain objecting stockholders before the Delaware State Chancery Court. I am sure that Mr. Wagner would make available to you and your committee the entire transcript of the record and no doubt aid you materially in finding that which is of importance to the State of Indiana by calling your attention to those specific points.

I recall one other instance which we ran across in going through this record which indicates quite clearly that very little spirit of competition exists with respect to the Kentucky Natural Gas Company and the Columbia Gas & Electric Company. While I cannot quote this testimony verbatim, Mr. Hillman himself testified to the effect that Columbia and he had agreed to work together in securing

the Indianapolis market and, when they got it, Columbia would serve seven-tenths of the Indianapolis requirement and the Kentucky Natural Gas Company three-tenths.

From my considerations of the above and other information that has come to me during the past three years I am convinced, first, that there is a gigantic conspiracy on foot to secure, not only monopolistic prices for natural gas, but also to set one city against another. In that respect your city and mine are typical examples.

At our recent conference at Columbus, Ohio, where there was formed a permanent organization of public officials from the midwest cities, we were able to prove in a very short time—first, the tremendous waste of gas and that there were producers in all the fields virtually starving for a market; second, that there was built some four years ago a pipe line from the Panhandle field to transport this excess gas to the markets and that because the management of that had some old-fashioned ideas and principles they were subjected to assaults both in the money market and in the stock market to the point where the company is today in receivership; and third, we proved that the whole State of Wisconsin, practically the entire States of Indiana and Michigan, and many other cities have actually been begging to secure natural gas. The whole story is one of selfishness and greed and back of it all is the selfish aim of the pipe line monopoly to maintain the exorbitant price structure which they have created. So far they have successfully eliminated competition.

It was the unanimous opinion of our conference that only through a United States Senatorial Inquiry are we going to be able to understand how thoroughly the people have been robbed, our natural resources squandered and wasted and the laws of the states and the land violated.

Through your Indianapolis paper I have followed the Indianapolis picture and it is most heartening to see how quickly your Legislature responded to the threat by the same forces. I sincerely hope that your inquiry will result in exposing the principles and the aims of the conspirators. The State of Indiana can render a very valuable service, not only to its people but to those of adjoining states, by prosecuting to the full extent of the law such Anti-Trust violations as the evidence clearly indicates exists.

I regret my inability to give you a full and complete outline of the facts concerning Indiana. However, I think it best that you get your information from Mr. Wagner. And may I further suggest, in view of the fact that your Legislature is now in session, that you memorialize the United States Senate by a proper resolution to institute an inquiry by the Senate Committee on Interstate Commerce.

Regretting my inability to get to Indianapolis and with kindest regards, I am,

Respectfully,

jws/

JOHN W. SMITH, *Chairman,*
THE CITIES ALLIANCE.

INDIANA RESOLUTION

A CONCURRENT RESOLUTION memorializing the Senate of the United States, to cause an investigation to be made of *monopolistic practices* in the natural gas industry in the United States.

WHEREAS there has been produced certain evidence before the Concurrent committee of the Senate and House, appointed to investigate the natural gas situation in the State of Indiana, appointed under and pursuant to Senate Concurrent Resolution No. 3, which indicates the existence of an *unlawful monopoly* in the transportation and distribution of natural gas; and

WHEREAS facts and information have been submitted to show that most quantities of natural gas are going to waste in Texas and other gas fields, and further tending to show that companies engaged in the production and transportation of natural gas have entered into monopolistic agreements and practices which result in *stifling competition*, in the *restraint of trade* and in fixing *unfair and unreasonable* prices of natural gas and forcing numerous cities to use mixed (natural and artificial) gas; and

WHEREAS a Cities Alliance has been organized for the purpose of *combatting this condition of monopoly* in the natural gas industry throughout the United States, said alliance having been organized at the suggestion of the U. S. Conference of Mayors and at present composed of the cities of Indianapolis and South Bend, Indiana; Detroit and Hamtramck, Michigan; St. Paul, Minnesota; St. Louis, Missouri; Louisville, Kentucky; Wheeling, West Virginia; Milwaukee, and Hartford, Wisconsin; Cleveland, Cincinnati, Columbus, Toledo, Dayton and Lima, Ohio; in addition to the Ohio League of Municipalities and the Wisconsin League of Municipalities; and

WHEREAS the concurrent committee appointed to inquire into these charges of monopoly and secret agreements among natural gas interests is *powerless* to apply the necessary and proper remedies to afford *adequate* protection to the citizens of this State, and said concurrent committee further finds that at present there is no *effective* regulation of the production and transportation of natural gas and can be none, *except by act of Congress*; therefore

SEC. 1. BE IT RESOLVED by the Senate of the General Assembly of the State of Indiana, the House of Representatives concurring, That the general assembly of the State of Indiana hereby (a) respectfully memorializes the Senate of the United States *to cause to be made a full investigation into monopolistic practices in the natural gas industry*; (b) respectfully request that the Senate of the United States require that the Federal Trade Commission submit to such Senate investigating committee *all evidence in its possession which tends to establish the existence of such monopolistic practices and secret agreements*; (c) respectfully memorializes the Congress of the United States to take such action as may be necessary to place the said industry under effective regulation to the end that the people of this country may enjoy the use of this great natural resource *at fair and reasonable rates*.

SEC. 2. The clerk of the Senate is hereby instructed to send a copy of this resolution to the president of the Senate of the United States and to the United States senators from Indiana.

COUZENS REQUESTS EVIDENCE OF LAW VIOLATIONS, SEEKS LOOPHOLES IN ANTI-TRUST ACT—MICHIGAN SENATOR RESPONDS BY RESOLUTION TO CITIES' PLEA FOR INQUIRY INTO NATURAL GAS INDUSTRY; FEDERAL TRADE COMMISSION REPORTS ITS PROGRESS

[Text of a letter by the Cities Alliance to Members of the United States Senate, representing Midwestern and Southwestern States]

COMMON COUNCIL, CITY OF DETROIT

JOHN W. SMITH, PRESIDENT

FEBRUARY 8, 1935.

DEAR SENATOR: It has come to the attention of the Common Council of Detroit that the States of Wisconsin, Minnesota, Illinois, Missouri, Kansas, Indiana, Ohio, West Virginia, Kentucky, Michigan, and Texas have been seriously affected by the domineering conduct of the major utility corporations in the natural gas industry.

The marketing of the product of independent producers has been restricted and independent competition in the transportation of natural gas has been stifled, resulting in a complete domination of this industry by a few major corporations.

The City of Detroit has been endeavoring to secure a supply of natural gas for over three years, during which time the only companies which in any way have co-operated have been acquired by the Columbia Gas & Electric Corporation. At least that is definitely true insofar as domination and control of management are concerned. In 1930 the Northern Industrial Gas Company petitioned our Common Council for a franchise, which company was immediately acquired by the Columbia Gas & Electric Corp. Since then all negotiations with the Panhandle Eastern Pipe Line Company, which was originally an independent concern but now is dominated by Columbia, have failed.

At a meeting of the Common Council, Mr. Woolfolk, president of the Detroit City Gas Company, admitted that there was no source other than through Columbia to obtain natural gas, and that he was unable to deal with them because of what he termed exorbitant prices.

The Common Council has made considerable study of this matter, directing in a resolution of January 15 the Corporation Counsel to investigate and report, a copy of which resolution and report are attached.

Our findings to date, having evidenced the existence of a gigantic conspiracy on the part of the major holding companies who dominate and control this industry, has brought about a spirit of indignation which was expressed at a meeting in Columbus, Ohio, January 28. There were present representatives from the cities of Detroit, Milwaukee, Cincinnati, Indianapolis, Columbus, Cleveland, Louisville, St. Louis, Toledo, Dayton, Wheeling, Lima, South Bend, St. Paul, Hamtramck (Mich.), and Hartford (Wis.); also Paul V. Betters, director of the U. S. Conference of Mayors, and Henry W. Worley, Mayor of Columbus and representing the Ohio League of Municipalities, as well as a representative of the Wisconsin League of Municipalities.

Following an exchange of experiences and knowledge of facts between the representatives present, a better understanding was had as to the obstacles encountered on the part of all the cities in their endeavors to obtain reasonable rates and an adequate supply of natural gas. It was found that Columbia Gas & Electric Corp. on one hand advertises in some cities that there is an adequate supply to serve the demands, while on the other hand they testify under oath in the Delaware State Chancery Court, explaining their reason for not taking natural gas from the Panhandle Eastern Pipe Line as being due to having an excess amount of gas to such an extent that it would be necessary for them to give up a vast portion of their gas reserves and shut in many of their wells.

Within two weeks after this hearing we again find them advertising that there is an adequate supply to meet all of the demands, endeavoring to pit one city against another with the suggestion that that city which better appreciates their natural gas service will be the one to secure it.

That there is, and has been, a gigantic conspiracy on the part of the major utilities, as well as violations of the anti-trust laws, becomes so apparent as to demand action. An Alliance of Cities was formed at the meeting at Columbus, above referred to, and a resolution was passed, memorializing the U. S. Senate to immediately cause to be made a full investigation of the natural gas industry. Copy of this resolution is attached.

To relate in full our findings to date would require entirely too much space for a letter. That which has been set forth in this letter, as well as in the attached resolutions, we believe to be sufficient to evidence the urgent need for an investigation on the part of the U. S. Senate.

While the Federal Trade Commission has been directed to investigate public utility companies, the effects of further delay that would result from awaiting the F. T. C.'s completion of this gigantic task would be great.

When consideration is given to the above, and to the following paragraph contained in the Commission's report (Chapter 14) on Conclusions and Recommendations—

"In the last analysis the foregoing practices and the conditions which they have created must be judged, not only by economic results, but by ethical standards. It is not easy to choose words which will adequately characterize various ethical aspects of the situation without an appearance of undue severity. Nevertheless, the use of words such as fraud, deceit, misrepresentation, dishonesty, breach of trust, and oppression are the only suitable terms to apply if one seeks to form an ethical judgment on many practices which have taken sums beyond calculation from the rate-paying and investing public"—the justification of an immediate investigation of this situation becomes apparent.

If an investigation on the part of the United States Senate were confined to:

1. An investigation of the reasons why the natural gas in the Panhandle Eastern Pipe Line has been unavailable to markets where a demand for the supply exists and has been refused to municipally-owned plants, despite the enormous waste of gas in the Texas Panhandle.

2. Which persons, firms, and corporations, have been involved in an attempt to stifle this independent competition.

3. The acquisition on the part of Columbia Gas & Electric Corp. of the Northern Industrial Gas Company and the American Fuel & Power Co. and other affiliated companies, which in 1930 offered an independent source of supply to the city of Detroit.

4. Determine what the Federal Trade Commission's investigations to date may have disclosed with respect to the general subject; if the investigation by the U. S. Senate were confined to those phases alone, we believe that, with the facts already on hand and available, the investigation could be concluded in three or four months' time, with the result that the findings with respect to violations of the Anti-Trust laws would not be so belated as to render them more or less ineffective by reason of the running of the Statutes of Limitations.

It is our hope that the final result would be the adoption of such Federal regulation as may be found necessary to correct the abuses now being practiced.

Therefore, we strongly urge that you give the matter your personal attention and support in the interests of the people of your own state, as well as the people of many other states confronted with this situation.

Any further information you may desire will be gladly furnished.

Respectfully yours,

CITIES ALLIANCE.
JOHN W. SMITH, *Chairman.*

JWS/L.

COUZENS RESOLUTION

[From the Congressional Record, v. 79, p. 3785. Mar. 16, 1935]

Investigation Relative to Natural Gas

Mr. Couzens submitted the following resolution (S. Res. 108), which was referred to the Committee on Interstate Commerce:

Resolved: That the Committee on Interstate Commerce, or any duly appointed subcommittee thereof, is authorized and directed to investigate to obtain information relative to the production, transmission, sale, and distribution of natural gas and to report its conclusions to the Senate for legislative purposes, the investigation and report to deal with the following subjects:

1. The persons, partnerships, corporations, or organizations interested in the production, transmission, sale, and distribution of natural gas.

2. The person, partnerships, corporations, or organizations interested in the financing or contributing to the financing; or persons in, or associated with, the production, transmission, sale, and distribution of natural gas.

3. Any act or proposal to act upon the part of such persons, partnerships, corporations, or organizations which created a monopoly, or tended to create a monopoly, for the control of the production, transmission, sale, and distribution of natural gas.

4. Any act or proposal to act which tended to prevent consumers of natural gas or potential consumers of natural gas from obtaining a supply of natural gas.

5. Any violation or evidence of violation of existing laws to prevent restraint in trade.

6. Any information which would be helpful to the Congress in determining whether existing laws to prevent restraint in trade are sufficient to prevent monopolistic practices in the production, transmission, sale, and distribution of natural gas.

7. Information which would be helpful to the Congress in determining whether pipe-line carriers should be declared common carriers and divorced from persons, partnerships, corporations, or organizations interested in the production, transmission, and sale of natural gas.

8. Any information to assist in determining whether persons, partnerships, corporations, or organizations now interested in or associated with the production, transmission, sale, and distribution of natural gas have acted or proposed to act to prevent publicly owned distributing companies from obtaining a supply of natural gas.

9. Any information which will show the present sources and volume of supply of natural gas and any and all other information reasonably incident thereto, including possible deliberate waste.

10. Any information to show the cost of producing, transmitting, distributing, and selling natural gas.

11. The committee is authorized and directed to obtain the assistance of the Federal Trade Commission, its officials and employees, in assembling any information already obtained by the Commission with reference to these general subjects.

For the purposes of this resolution, the committee, or any duly authorized subcommittee thereof, is authorized to hold such hearings, to sit and act at such times and places during the sessions and recesses of the Senate in the Seventy-fourth Congress, to employ such clerical and other assistants, to require by subpoena or otherwise the attendance of such witnesses, and the production of such books, papers, and documents, to administer such oaths, to take such testimony, and to make such expenditures as it deems advisable. The cost of stenographic services to report such hearings shall not be in excess of 25 cents per hundred words. The expenses of the committee, which shall not exceed \$5,000, shall be paid from the contingent fund of the Senate upon vouchers by the chairman.

F. T. C. REPLY TO WHEELER

[From the Congressional Record, v. 79, p. 6510. Apr. 29, 1935]

Investigation Relative to Natural Gas

MR. COUZENS. Mr. President, on March 16 last I submitted a resolution, which is designated as "Senate Resolution 108," which was referred to the Committee on Interstate Commerce. We have consulted with the Federal Trade Commission, and I ask leave to have printed in the RECORD a letter from the Federal Trade

Commission dated April 6, 1935, as a reason for not prosecuting the consideration of the resolution.

There being no objection the letter was ordered to be printed in the RECORD, as follows:

APRIL 6, 1935.

HON. BURTON K. WHEELER,
Chairman, Senate Committee on Interstate Commerce,
United States Senate, Washington, D. C.

Senate Resolution 108

MY DEAR SENATOR. This is in acknowledgment and reply to your letter of April 3.

Referring to Senate Resolution 108, directing an investigation by your committee into certain matters therein specified relative to the production, distribution, and sale of natural gas, you say:

"I would appreciate it if this committee could have your comment on this proposed legislation and any material which would be helpful to the committee."

Pursuant to the Senate's direction, given in Senate Resolution 83, Seventieth Congress, first session, as extended through the current year by Senate Joint Resolution 115, Seventy-third Congress, second session, the Federal Trade Commission is already well on its way in its investigation into the natural-gas industry, including natural-gas production and natural-gas pipe lines, and retail distribution of natural gas. Under the extension directed by Congress to the end of the present calendar year, the Commission has directed its utilities staffs, both economic and legal, to devote practically all of their time to the natural-gas and natural-gas pipe-line industries. Engineering surveys are also being made of the physical properties devoted to the natural-gas business, including problems of conservation, production, transportation, and operations.

Under separate cover I am sending you a copy of Federal Trade Commission Report, part 68 (Senate reprint), which contains a report on the general gas situation in the United States (ex. 6068). This is printed beginning at page 819. Colonel Chantland's statement as to the situation and Mr. Carter's testimony begin at page 174. This covers substantially the first part of point 9 of the resolution.

Already examinations have been made and reports sent to the Senate on corporations in the natural-gas and pipe-line industry, including some on the examination of physical properties, as follows: Columbia Gas and Electric Corporation (Morgan) (Senate print, pts. 47, 49, 52, 64, 68); and on its subsidiaries, Manufacturers Light & Heat Co., Columbia Gas Construction Co., Union Gas & Electric Co., Ohio Fuel Corporation, Columbia Securities Corporation (Senate print, pt. 47), United Fuel Gas Co., Huntington Gas Co., Cincinnati Gas Transportation Co., American Fuel & Power Co. (Senate print, pts. 49, 52), Southwestern Gas & Electric Co. (Former Dawes interests, Senate print, pt. 68).

The following companies of Cities Service Corporation (Doherty interests): Cities Service Gas Co., Cities Service Gas Pipe Line Co., Gas Service Co., Kansas City Gas Co. (Senate print, pts. 67, 70).

There has also been a report presented on the Natural Gas Pipe Line of America (Senate print, pt. 62). This company owns a pipe line from the Texas Panhandle to Chicago and is jointly owned by the Cities Service Co., Natural Gas Investment Co. (Insull), Standard Oil Co. of New Jersey, Southwestern Development Co., and Texas Co., and Columbian Carbon Co.

In addition to the above, examinations have been completed and reports are nearing completion on the American Natural Gas Corporation and Southern Natural Gas Corporation.

Examinations are in progress on the following natural-gas and natural-gas pipe line companies: Missouri-Kansas Pipe Line Co., United Gas Corporation, Lone Star Gas Corporation, Lone Star Gas Co., Northern Natural Gas Co., Kansas Pipe Line & Gas Co., Washington Gas Light Co.

In all of these examinations and reports attention is given to substantially all of the points covered in the resolution. It is for the Senate to say whether a task, already assigned to this Commission by the Senate and well in progress, need be done by a Committee of the Senate with the considerable duplication that would seem inevitable.

Very truly yours.

EDWIN L. DAVIS, *Chairman.*

CHANCELLOR BLASTS MONOPOLY'S HOPE TO ABSORB RIVAL NATURAL GAS COMPANY—SAFEGUARDS UTILITY CONSUMERS BY INSURING CONTINUED COMPETITION AMONG PIPE LINE INTERESTS FOR MIDWEST MARKETS; REFUSES TO CANCEL ANTI-TRUST DAMAGE CLAIMS

IN THE COURT OF CHANCERY OF THE STATE OF DELAWARE, IN AND FOR NEW CASTLE COUNTY

R. H. McWILLIAMS, JR., CO., INC., COMPLAINANT, VS. MISSOURI-KANSAS PIPE LINE COMPANY, A CORPORATION, FRANK P. PARISH & CO., A CORPORATION, KENTUCKY NATURAL GAS COMPANY, A CORPORATION, AND INDIANA-KENTUCKY NATURAL GAS CORPORATION, A CORPORATION, RESPONDENTS.

IN THE MATTER OF PETITION OF RECEIVERS OF MISSOURI-KANSAS PIPE LINE COMPANY, FOR APPROVAL OF AGREEMENT TO REORGANIZATION OF PANHANDLE CORPORATION AND PANHANDLE EASTERN PIPE LINE COMPANY

Petition of Receivers of Missouri-Kansas Pipe Line Company for approval of an agreement relative to reorganization of Panhandle Corporation and Panhandle Eastern Pipe Line Company. Heard on petition, objections in the form of answers to the petition, oral testimony of witnesses before the Chancellor and exhibits.

Christopher L. Ward, Jr., of the firm of Marvel, Morford, Ward, and Logan, and William H. Bennethum, for receivers.

John Biggs, Jr., of the firm of Biggs and Lynch, Richard B. Hand, of the firm of Gibbs, Hand, and McCabe, of New York City, Kenneth E. Walser, of the firm of Spence, Hopkins, and Walser, of New York City, of counsel, for New York Stockholders Protective Committee.

James M. Malloy and Gilbert F. Wagner, of Chicago, Illinois, for certain objecting stockholders.

Irving S. Herriott, of the firm of Montgomery, Hart, Pritchard, and Herriott, of Chicago, Illinois, for Chicago Stockholders' Protective Committee.

THE CHANCELLOR. If the proposed reorganizations are consummated, the receivers of Missouri-Kansas Pipe Line Company will emerge from the completed transactions *with all their interest in Panhandle Eastern Pipe Line Company wiped out, with all rights of action against the so-called Columbia group released, and in the possession of about three hundred thousand dollars in the form of cash or its equivalent.* The question which the petition presents is whether this court should authorize the receivers to participate in a settlement of the affairs of Panhandle Corporation and Panhandle Eastern Pipe Line Company which leaves the estate of Missouri-Kansas Pipe Line Company in that condition. Missouri-Kansas stockholders invested about *sixteen million dollars* in the Panhandle Eastern Pipe Line. They will salvage *nothing* of that investment. Their creditors will receive as much probably as *twenty-five cents* on the dollar.

The objectors vigorously oppose the settlement. Their principal ground of opposition is directed against the granting of a release to the Columbia companies, their directors, officers, and stockholders, whereby the releasees will be freed of all claims for damages which, it is claimed, Missouri-Kansas is now entitled to assert by reason of an *alleged conspiracy on their part with others to destroy the Missouri-Kansas Pipe Line Company as a competitor in the business of supplying natural gas for industrial and domestic consumption in a considerable portion of the mid-western field.* The receivers have heretofore received authority of this court to bring suits against the alleged conspirators. Such suits have been instituted, the damages laid running into many millions of dollars. *Now, the receivers recommend to the court not only that those suits, so far as the Columbia group is concerned, should be permanently abandoned but that also the Missouri-Kansas stockholders should lose all their interest in the Panhandle Eastern Pipe Line enterprise.* The receivers, and their counsel, I am confident, are sincerely of the opinion that the course *they recommend* is the most advisable one under all the circumstances. They have labored hard and industriously to rescue something from the wreckage of the insolvent company. In view of my respect for the judgment of the receivers, it is with reluctance that I find myself *unable* to act favorably upon *their recommendation.*

The record which is a very voluminous one and the briefs which are lengthy are principally concerned with the merits or demerits as the case may be of the claims which the receivers have asserted against the Columbia group and which

are proposed to be released. Concluding as I have that the receivers should stand aloof from the settlement, it is not in order for me, I conceive, to discuss the claims.

If I were to undertake to enter upon a consideration of those claims with the view of finally passing upon their validity, it would be for the purpose only of determining whether the claims should be prosecuted rather than released. The determination would not result in a decree or judgment. The trial of those grievances, if it goes on, will take place elsewhere. Inasmuch as mine is not the province to pronounce final judgment on the asserted causes of action, I feel it would be improper for me to embark upon a discussion of their respective merits with the view of announcing conclusions with respect thereto. Accordingly I refrain from saying anything which would appear to prejudice the position of those who assert the claims or of those against whom they are alleged. So far as this court is concerned, the matters involved in the pending or future suits, upon which the large claim for damages is based, are to be regarded as though the pending petition had never been filed. The conclusion that the receivers ought not to enter into the settlement is determinative of nothing except that as an administrative matter *the terms of the proposed settlement do not appear to be such as to warrant the court's endorsement and consequent aid in accomplishing.*

The prayer of the petition will therefore be denied without prejudice to the rights or claims of any of the appearing parties.

Let an order be prepared accordingly.

March 29, 1935.

(Signed) JOSIAH H. WOLCOTT, *Chancellor.*

GOVERNMENT STRIKES AT COMMERCE RESTRAINTS IN NATURAL GAS INDUSTRY—
CIVIL ANTI-TRUST ACTION FILED AGAINST COLUMBIA GAS & ELECTRIC CORPORATION FOLLOWING CITIES' PROTESTS; HOLDING COMPANY OFFICIALS ARE NAMED

[Reprint of Justice Department's Announcement]

For Immediate Release.

DEPARTMENT OF JUSTICE, *March 6th, 1935.*

UNITED STATES *v.* COLUMBIA GAS & ELECTRIC CORPORATION ET AL.

The Government instituted injunction proceedings under the Federal anti-trust laws in the Federal District Court at Wilmington, Delaware, today against Columbia Gas & Electric Corporation, a large holding company controlling many public utility enterprises engaged in the production, transportation, and sale of natural and manufactured gas, and Columbia Oil & Gasoline Corporation, one of its principal subsidiary companies.

The petition charges that the defendants have engaged in a conspiracy to restrain trade in natural gas in violation of the Sherman anti-trust act, and that the Columbia Gas & Electric Corporation and Columbia Oil & Gasoline Corporation have also violated the Clayton Act in acquiring stock and bonds of Panhandle Eastern Pipe Line Company, another public utility enterprise engaged in producing, transporting, and selling natural gas. It is charged that the Columbia Oil & Gasoline Corporation acquired fifty percent of the stock of the Panhandle Company, and twenty million dollars of its bonds, and by that means was enabled to dominate and control the Panhandle Company; that the Panhandle Company was then prevented from performing contracts for the sale of gas to large purchasers and from furnishing gas to many municipalities, private corporations, and other purchasers and consumers in Kansas, Missouri, Illinois, Indiana, and Michigan.

The petition further charges that these acts of interference with the Panhandle Company caused it to suffer great pecuniary loss and prevented it from earning a sufficient income to pay many of its debts, and were committed for the purpose of enabling the defendants to directly acquire complete, absolute and permanent domination and control of the Panhandle Company, its property and the commerce in natural gas engaged in by it, and for the purpose of preventing that company from continuing and completing the construction of pipe lines and facilities for the transportation of natural gas to cities, towns, and other places in Indiana, Ohio, and Michigan, and of preventing it from engaging in commerce in natural gas in competition with the Columbia Gas & Electric Company and the corporations controlled by it.

The Government asks the court to award an injunction against the defendants and to require the Columbia Oil & Gasoline Corporation to divest itself of the stock and bonds of the Panhandle Co.

A list of the defendants follows:

1. Columbia Gas & Electric Corporation.
2. Columbia Oil & Gasoline Corporation.
3. George H. Howard.
4. Philip G. Gossler.
5. Charles A. Munroe.
6. George W. Crawford.
7. Thomas B. Gregory.
8. Edward Reynolds, Jr.
9. Burt R. Bay.
10. John H. Hillman, Jr.

Q. What were the specific allegations filed by the Department of Justice against Columbia?—A. In his "amended and supplemental petition" the Attorney General alleges upon information and belief as follows (in part):

"ARTICLE 15. That the field of operations of the Columbia System, so far as the production, transmission, and distribution of natural gas is concerned, extends from Muncie, in the State of Indiana, through the States of Ohio, Kentucky, West Virginia, and Pennsylvania to Washington, in the District of Columbia, and other cities on the Eastern Seaboard. Its greatest concentration of operations is in the State of Ohio, in a large portion of which state it has for many years past enjoyed a virtual monopoly in the sales and distribution of natural, mixed, and artificial gas.

"16. That Missouri-Kansas Pipe Line Company, hereinafter sometimes referred to as Moka, was organized under the laws of the State of Delaware in 1928 for the purpose of producing, transporting, distributing, and selling natural gas, both at wholesale and retail, in the states of Kansas, Missouri, Illinois, Kentucky, Indiana, Michigan, and Ohio. By 1930 it had acquired vast gas-producing acreage in the Panhandle of Texas and the Hugoton field of Kansas at prices which would have enabled it to market such gas on a favorable competitive basis with any person, firm, or corporation then or now engaged in the sale and distribution of natural gas in said states of Kansas, Missouri, Illinois, Indiana, Kentucky, Michigan, and Ohio.

"In 1929 Moka caused the organization of Panhandle Eastern Pipe Line Company under the laws of the State of Delaware and became the owner of the entire capital stock of said corporation. Said Panhandle Eastern Pipe Line Company was organized for the purpose of building and operating a natural-gas pipe line from said gas-producing territories of the Texas Panhandle and Kansas through the States of Oklahoma, Kansas, Missouri, Illinois, and Indiana, up to the city of Indianapolis. It was the intention of Missouri-Kansas Pipe Line Company to purchase a large part of the natural gas so transmitted by Panhandle Eastern Pipe Line Company for resale in the territories served and to be served by said Missouri-Kansas Pipe Line Company. Plans for the construction of said Panhandle Eastern pipe line included extensions to the City of Detroit, Michigan, and to Dayton and Cincinnati in Ohio, upon its completion to the City of Indianapolis.

"17. That since early in June 1930, the defendants have been and now are engaged in a combination and conspiracy to restrain trade and commerce in natural gas among the States of Kansas, Missouri, Illinois, Indiana, Michigan, and Ohio, and to monopolize and attempt to monopolize such trade and commerce in said natural gas in the States of Indiana, Michigan, and Ohio in violation of the Act of Congress approved July 2, 1890, entitled 'An Act to Protect trade and commerce against unlawful restraints and monopolies.' The specific purposes and objects of said combination and conspiracy were and are—

"To prevent, if possible, the construction of the natural-gas pipe line described in Article 16 hereof, and, failing that, to obtain control of the management and operation of said Panhandle Eastern Pipe Line Company and its subsidiaries, and, having obtained such control, so to conduct its activities and affairs as to (a) prevent said Missouri-Kansas Pipe Line Company from obtaining its requirements of natural gas from said Panhandle Eastern Pipe Line Company; (b) prevent said Panhandle Eastern Pipe Line Company from making available, either directly or indirectly, its large supplies of natural gas in such manner as to compete with the Columbia System or endanger its actual or contemplated monopoly in the distribution and sale of natural gas in said States of Indiana, Michigan, and Ohio; and finally (c) bring said Panhandle Eastern Pipe Line Company to such a financial condition that the corporate defendants herein might be enabled to acquire the complete domination and ownership of its physical assets and properties, either by foreclosure of the mortgage securing its bonded indebtedness or otherwise, as hereinafter more particularly described.

"The defendants herein have carried out, or attempted to carry out, the purposes and objects of said combination and conspiracy in the manner and by the means hereinafter set forth.

"18. That on or about June 20, 1930, the defendant Columbia Oil and Gasoline Corporation entered into an agreement with Mokaan, whereby and whereunder said Columbia Oil & Gasoline Corporation acquired the exclusive right to purchase one-half of the outstanding capital stock of said Panhandle Eastern Pipe Line Company and thereafter to maintain its 50% ownership in said company by having the right, likewise exclusive, to purchase one-half of such additional stock or evidences of indebtedness as might be issued by said company. * * * Said agreement was by its terms to expire on August 5, 1930. At the request of the corporate defendants herein and as a means of carrying out said combination and conspiracy, said expiration date was twice extended by Mokaan for periods of 15 days, and on the final date, to wit, September 5, 1930, the defendant Columbia Oil & Gasoline Corporation refused to go forward with said agreement, with the intent by so doing of forcing Mokaan into receivership and thus preventing the completion of said Panhandle Eastern pipe line.

"19. That on or about September 8, 1930, Mokaan entered into a written agreement with Central Public Service Corporation, a corporation of the State of Maryland, whereby and whereunder it was provided that said Central Public Service Corporation would acquire a substantial interest in the Panhandle Eastern Pipe Line Company and would arrange an immediate credit of \$10,000,000 for Mokaan. Pursuant to said agreement, Mokaan did borrow for its corporate needs the sum of \$3,000,000 and thereby avoided a receivership. * * * On September 12, 1930, the individual defendants, Gossler, Munroe, and Howard, as a means of carrying out the combination and conspiracy hereinbefore described, attempted to dissuade said Central Public Service Corporation from going forward with said agreement and from assisting Mokaan as therein provided.

"20. That having failed in their efforts to persuade Central Public Service Corporation to abandon its agreement with Mokaan, the corporate defendants and certain of the individual defendants attempted to, and succeeded in, inducing Mokaan to abandon its agreement with Central Public Service Corporation and to enter into a new agreement with the defendant Columbia Oil & Gasoline Corporation and the National City Company of New York."

(The Government further alleged that, following the signing of a partnership agreement between the Columbia and Mokaan interests, whereby they would share equally in the common stock ownership of the Panhandle Eastern Pipe Line Company, the Columbia further abetted the conspiracy by the following acts:)

"21. The defendants Gossler and Munroe induced Mokaan to accept the defendant Howard as such third voting trustee and ninth director by representing that said Howard would act impartially and in the best interests of Panhandle Eastern Pipe Line Company, but the selection of the defendant George H. Howard as the third voting trustee, and the ninth director of Panhandle Eastern Pipe Line Company, was in reality an act done in furtherance of said combination and conspiracy, since at the time of such selection the said George H. Howard was president of United Corporation, which corporation was and is the largest single stockholder in the defendant, Columbia Gas & Electric Corporation, and during the period that said George H. Howard served as said voting trustee and director he acted solely in the interests of the corporate defendants herein and for the single purpose of effecting the objects of said combination and conspiracy.

"22. That pursuant to the terms of said agreement of September 17, 1930, the defendant, Columbia Oil & Gasoline Corporation, purchased one-half of the outstanding capital stock of Panhandle Eastern Pipe Line Company and the National City Company purchased its issue of first-mortgage bonds in the total principal amount of \$20,000,000. Likewise, pursuant to the terms of said agreement, Mokaan caused the president of Panhandle Eastern Pipe Line Company to write to The National City Company a letter descriptive of its properties and project and of the bonds, and said National City Company caused to be prepared numerous drafts of a circular, offering said bonds for sale to the public. Prior to any public offering, however, and as a means of carrying out the combination and conspiracy hereinbefore described, the corporate defendants herein induced said National City Company to sell said entire issue of bonds to the defendant, Columbia Oil & Gasoline Corporation, thus enabling it to acquire a first-mortgage lien upon all of the physical assets and properties of said Panhandle Eastern Pipe Line Company.

"23. That as soon as the new Board of Directors of Panhandle Eastern Pipe Line Company had been elected * * * the individual defendants * * * caused the election of new officers to manage and operate the affairs of said

Panhandle Eastern Pipe Line Company, none of whom, with the exception of the defendant Burt R. Bay, had previously been identified either with Mokan or the Panhandle Eastern Pipe Line Company, and all of whom, including said defendant Burt R. Bay, were and are responsive to the wishes of the other defendants herein in the management of the operations and affairs of said Panhandle Eastern Pipe Line Company."

24. That when, early in 1931, it became necessary for Columbia and Mokan to contribute additional funds for the completion of the Panhandle Eastern pipe line, the defendant Phillip G. Gossler (president of Columbia) attempted to dissuade Mokan's financiers from furnishing assistance to Mokan which would enable Mokan to retain its one-half interest in Panhandle Eastern Pipe Line Company.

"Subsequent to said financing and during April, 1931, the defendant Gossler threatened the defendant Hillman and said Dillon, Read & Company that Panhandle Eastern Pipe Line Company would be managed in such manner that it would become bankrupt and the interests represented by the defendant Hillman and Dillon, Read & Company wiped out, unless they prevailed upon Mokan and upon its subsidiary, Kentucky Natural Gas Company, to cease their efforts to sell natural gas from said Panhandle Eastern Pipe Line in Indianapolis, Indiana, and in Detroit, Michigan."

25. That the defendants caused the mortgage trust indenture covering the \$20,000,000 bond issue, to be so amended and supplemented that "a failure to pay any installment of interest upon the 6% promissory notes of said Panhandle Eastern Pipe Line Company, hereinbefore described, would constitute an act of default under said mortgage trust indenture and would automatically cause the entire issue of bonds as aforesaid to become in default."

26. That the defendants prevented the Panhandle Eastern Pipe Line Company from selling and Mokan from buying such quantities of gas from the terminus of the Panhandle Eastern system for unrestricted resale to available markets as had been pledged in the partnership agreement; that the defendants "failed and neglected to make any effort to force the defendant Columbia Oil & Gasoline Corporation" to sell a large quantity of natural gas by Panhandle Eastern Pipe Line Company to the defendant Columbia Gas & Electric Corporation or its subsidiaries; "that actual purchases of gas from Panhandle Eastern Pipe Line Company by the defendant Columbia Gas & Electric Corporation, and/or its subsidiaries, since the completion of said pipe line in November 1931, have been much less than those provided for in said agreement of September 17, 1930, and greatly less than the amount that could have been purchased and used by the Columbia System."

27. That due to these restraints and resulting handicaps, Mokan "became financially embarrassed, and in March 1932 receivers of its property were appointed by the Court of Chancery of the State of Delaware, and that by reason of said receivership, Mokan's chief creditor came into ownership of most of Mokan's interest in Panhandle Eastern, and thereafter acted in concert with the other individual defendants * * * as to carry out the purposes and objects of said combination and conspiracy."

"28. That despite the covenant contained in Article VII (c) of said agreement of September 17, 1930, and as a means of carrying out the objects of said combination and conspiracy, the defendants not only attempted to and did prevent Missouri-Kansas Pipe Line Company from selling natural gas from said Panhandle Eastern line in large quantities to industrial users in the City of Indianapolis, but also have caused said Panhandle Eastern Pipe Line Company to neglect and reject many opportunities to sell its natural gas to prospective customers in Kansas City and St. Louis, in Detroit, and in smaller communities in the States of Kansas and Missouri."

29. That the defendants, by their aforesaid acts, "brought the financial condition of the Panhandle Eastern Pipe Line Company to a place where said company was represented to be unable to pay the interest installment due on March 2, 1934, on its said 6% promissory notes." That the defendants then caused to be presented to the Chancery Court of Delaware a so-called "Plan of Reorganization" which, in substance, would have freed the defendants and others from damage suits by Mokan arising out of the defendants acts; cancelled Mokan's right to purchase gas from Panhandle Eastern; wiped out entirely the investments of Mokan stockholders, and provided Mokan creditors with payment of a minor portion of their claims. This "Plan of Reorganization" was disapproved by the Chancery Court.

30. That the defendant later caused to be adopted a so-called "Revised Plan of Readjustment of Funded Debt and Capitalization" of Panhandle Eastern

which, "if carried out will result in ownership by the defendant Columbia Oil & Gasoline Corporation of the entire funded debt of Panhandle Corporation now in default and guaranteed by Mokan, as well as ownership of three-fourths of the outstanding capital stock of said Panhandle Corporation, which, if carried out, would result virtually in a total ownership of Panhandle Eastern's capital stock by the Columbia Oil & Gasoline Corporation.

31. That "the defendant Columbia Oil & Gasoline Corporation is in a position to, and will, unless restrained by the order of this Honorable Court, either obtain ownership of 100% of the outstanding capital stock of Panhandle Eastern Pipe Line Company and retain ownership of the greater part of the funded debt of said corporation * * * and thus secure the physical properties and assets of said Panhandle Eastern Pipe Line Company."

COLUMBIA SURRENDERS CONTROL OVER PANHANDLE EASTERN, AVOIDS FEDERAL TRIAL—DEFENDANTS PERPETUALLY ENJOINED FROM RESTRAINTS ON NATURAL GAS COMMERCE; TRUSTEE NAMED TO VOTE STOCK AND SUPERVISE MANAGEMENT

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF DELAWARE

UNITED STATES OF AMERICA, PETITIONER, *v.* COLUMBIA GAS & ELECTRIC CORPORATION, COLUMBIA OIL & GASOLINE CORPORATION, GEORGE H. HOWARD, PHILIP G. GOSSLER, CHARLES A. MUNROE, THOMAS R. WEYMOUTH, THOMAS B. GREGORY, EDWARD REYNOLDS, JR., BURT R. BAY, AND JOHN H. HILLMAN, JR., DEFENDANTS

IN EQUITY, No. 1099

DECREE

This cause coming on to be heard this 29th day of January 1936, and the several defendants having accepted service of process and having appeared and filed their answers to the Amended and Supplemental Petition herein, which latter has superseded the original Petition and is hereinafter referred to as the Petition;

And the petitioner and the defendants having filed a stipulation with the Clerk of the Court wherein and whereby they consent to the making and entering of this decree;

And it appearing that the petitioner alleges that the defendant Columbia Gas & Electric Corporation, through ownership by its affiliate Columbia Oil & Gasoline Corporation of various securities of Panhandle Eastern Pipe Line Company and otherwise, has *interfered with, dominated and controlled* the management and operation of said Panhandle Eastern Pipe Line Company with the purpose and effect of *preventing competition*, actual and potential, between said Panhandle Eastern Pipe Line Company and said Columbia Gas & Electric Corporation, and of *monopolizing and attempting to monopolize* interstate trade and commerce in natural gas in certain sections of the United States;

And it further appearing from said stipulation that the petitioner and the defendants have agreed that provision against domination or control, direct or indirect, in the affairs of Panhandle Eastern Pipe Line Company by the defendant Columbia Gas & Electric Corporation and the maintenance of said Panhandle Eastern Pipe Line Company in a position of *free and independent* action in the production, transmission, sale and distribution of natural gas in competition with others constitutes the proper basis for the entry of this decree;

Now, Therefore, without taking any testimony or evidence and in accordance with such stipulation, it is hereby

ORDERED, ADJUDGED and DECREED as follows:

I

That the Court has jurisdiction of the subject matter hereof and of all the parties hereto, with full power and authority to enter this decree; and that the petition states a cause of action under the Act of Congress approved July 2, 1890, entitled "*An Act to protect trade and commerce against unlawful restraints and monopolies*," and the Act of Congress approved October 15, 1914, entitled "*An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes*."

That the restrictions and injunctions herein shall apply not only with respect to the parties hereto and corporations mentioned herein, *but also to all persons, corporations, partnerships, associations, or organizations acting, claiming, or assuming*

to act for or on behalf of them or any of them; to their successors or assigns and any and all partnerships, corporations, or individuals who may directly or indirectly acquire the ownership or control of the property, business, or assets (except securities of Panhandle Eastern) of said parties whether by merger, consolidation, reorganization, or otherwise; and to the taking of action prohibited herein by *indirection* or by or through subsidiaries, affiliates, officers, directors, shareholders, agents, receivers, trustees, attorneys, employees, or otherwise, individually or collectively.

That the defendant Columbia Gas & Electric Corporation, a Delaware corporation hereinafter referred to as "Columbia Gas," is a holding company owning more than 50 subsidiary companies; that a substantial part of the business of said enterprise is the production, transmission, distribution and sale of natural and artificial gas;

That the defendant Columbia Oil & Gasoline Corporation, hereinafter referred to as "Columbia Oil," is a corporation of the State of Delaware, organized to hold and operate oil and gasoline properties formerly owned by Columbia Gas and has not been and is not now engaged in the business of producing, transmitting, distributing and selling natural gas, except that it owns certain securities of said Panhandle Eastern Pipe Line Company and all of the outstanding capital stock and certain indebtedness of Indiana Gas Transmission Corporation;

That Panhandle Eastern Pipe Line Company, hereinafter referred to as "Panhandle Eastern," is a corporation of the State of Delaware, owns and controls large gas-producing areas in the Texas Panhandle and in Kansas and has constructed a natural gas pipe line from said producing areas through the states of Oklahoma, Kansas, Missouri, Illinois, and touching upon Indiana, for the purpose of transmitting, distributing, and selling such natural gas;

That Panhandle Corporation is a corporation of the State of Maryland, and now owns stock and notes of Panhandle Eastern;

That the individual defendants named in the petition herein are citizens of the United States and have been either voting trustees of the common stock of Panhandle Eastern or officers or directors of said corporation, and with the exception of the defendants Burt R. Bay and John H. Hillman, Jr., have been officers or directors of Columbia Gas and Columbia Oil.

II

That the defendants be and they are hereby PERPETUALLY ENJOINED from exercising, or attempting, individually or collectively, directly or indirectly, to exercise any dominion or control over Panhandle Eastern and from restraining, or interfering in any manner with, the free and independent action of said Panhandle Eastern in the production, transportation, sale, or delivery of natural gas to any person, corporation, community, or section of the United States; from holding, acquiring, voting, or in any manner acting as the owners, directly or indirectly, of the whole or any part of the stock, or other share capital, or bonds, property, or assets of Panhandle Eastern or any other company, corporation, association, or organization owning any substantial amount of its securities; and from participating in any way, directly or indirectly, or from exercising any control, direction, supervision, or influence, in the management or control of Panhandle Eastern; except

(a) That defendants may own stock in and obligations of Columbia Gas and Columbia Oil and be and exercise the lawful rights of directors or officers thereof;

(b) That defendants may own stock and obligations in Panhandle Corporation for, and pending, the dissolution of the latter corporation and the disposition of its interests in Panhandle Eastern as speedily as possible, in a manner not inconsistent with the provisions of this Section II and the purposes and further provisions of this decree; and defendant Hillman may continue to own 60,000 shares of stock he now holds in Missouri-Kansas Pipe Line Company so long as the voting rights appurtenant thereto are exercised independently of the other defendants herein and not in a manner inconsistent with the purposes and provisions of this decree;

(c) That Columbia Gas and defendant Hillman may own or acquire obligations, without present or potential voting rights, of said Panhandle Eastern, except that Columbia Gas is hereby enjoined and restrained in connection with enforcing any rights under said obligations with respect to principal, interest or sinking fund, from acquiring any of the pipe line or other physical assets of Panhandle Eastern;

LIBRARY

BALDWIN-WALLACE COLLEGE

BREA. OHIO

(d) That Columbia Oil may own or acquire stock or obligations in Panhandle Eastern and exercise voting rights appurtenant thereto (and defendant Bay may be and exercise the lawful rights of an officer of Panhandle Eastern), subject to the further terms and provisions of this decree, but Columbia Gas is hereby perpetually enjoined and restrained from acquiring any interest in such stock, by operation of law, or in connection with enforcing any lien created through the present or future existence of any debt, whether funded or unfunded, of Columbia Oil to Columbia Gas, or otherwise;

(e) That, when Columbia Gas has effectively divested itself of all control, direct or indirect, legal or practical, of Panhandle Eastern by no longer owning stock of any class having present or potential voting rights in Columbia Oil, upon the approval of this Court, Columbia Oil shall no longer be subject to the restrictive clauses of this Section II;

III

That Gano Dunn is hereby nominated, constituted, and appointed trustee for the purpose and with the powers and duties set forth in this Section III;

That within 10 days after the entry of this decree Columbia Oil shall execute and deposit with said trustee the agreements and offers executed by it in accordance with, its agreements set forth in Section V of the stipulation pursuant to which this decree is entered;

That within 10 days after the entry of this decree Columbia Oil shall transfer all of its stock now owned and thereafter all stock subsequently acquired in Panhandle Eastern, having present or potential voting rights, to said trustee to hold the legal title to said stock and to exercise all the rights and privileges incidental to the absolute ownership thereof upon the following terms and conditions:

(a) To vote said stock for the election of as many directors of Panhandle Eastern as the number of shares thereof may be entitled to elect: *Provided*, that one of the directors so elected shall be the *trustee*; and that the remainder shall be selected from among persons recommended by the beneficial owner of said stock, in conference and with the advice of the trustee, *but not including any of the individual defendants herein* or anyone (except with the approval of the trustee and this Court) who after January 1, 1931, has been or hereafter becomes an officer, director, agent or employee of Columbia Gas; and that, as to the directors so selected, *the trustee is empowered to remove and replace such directors with others of his own choosing upon his own motion*, if in his judgment such action is necessary in the interest of Panhandle Eastern or for the effectuation of the purposes of this decree; subject, however, in this as well as in the exercise of all other powers to the authority of this Court upon the motion and showing of any party hereto, or upon its own motion, to restrain said trustee from abuses of sound discretion, in view of the purposes of this decree and the law under which it is entered, or in case said trustee does not act in good faith hereunder;

(b) To vote said stock upon all other questions and matters in which the stock is entitled to vote, as directed by the beneficial owners thereof, *except* when such directions are *inconsistent* with the purposes of this decree;

(c) To deposit for safe keeping the certificate for such stock with such bank or trust company as he may select and to issue, or arrange for the issuance, by such bank or trust company to the defendant Columbia Oil, of receipts for the stock so deposited in such form as the trustee may approve;

(d) To receive reasonable compensation, the amount thereof to be approved by this Court at not less than \$15,000.00 per annum, for all services rendered by him as trustee, and to be reimbursed for any expenses incurred by him in the performance of his duties hereunder, upon quarterly accounts to this Court, which when approved by the Court, shall be paid in equal shares by the defendants Columbia Gas and Columbia Oil;

(e) To pay over to Columbia Oil all dividends received upon said stock, *except that dividends in the form of stock having present or potential voting rights shall be retained by the trustee* subject to the same terms and conditions as the other shares held hereunder;

(f) To exercise all rights to subscribe to additional stock or other securities of Panhandle Eastern as Columbia Oil may direct;

(g) To report to this Court semiannually; and to account for any action hereunder only in proceedings in this Court, any further order of this Court entered upon notice to such trustee and to the parties hereto shall be full protection to him for any action taken pursuant thereto, and the trustee shall not be personally responsible for mistakes in judgment or mistakes of law or fact in the execution of his duties hereunder but only for lack of good faith;

That during the existence of the trust hereby created the trustee herein appointed shall be subject to removal by this Court in its discretion; and in the event of such removal or in the event of the death, resignation, or inability to act of such trustee, his successor shall be appointed by this Court upon recommendation of the parties hereto;

That the trust hereby created shall be and remain in full force and effect until terminated with the approval of this Court when (1) Columbia Gas has *effectively divested itself of all control*, direct or indirect, legal or practical, of Panhandle Eastern by (a) no longer owning stock of any class having present or potential voting rights in Columbia Oil or (b) by Columbia Oil divesting itself of ownership of all stock of Panhandle Eastern; or when (2) under the circumstances then existing, the continuation of said trust is no longer essential or necessary in carrying out the purposes of this decree: *Provided*, that no such stock of Panhandle Eastern shall be divested *by transfer to any competitor of Panhandle Eastern* or without prior notice and full disclosure of the facts to petitioner.

IV

That the defendants be and they are hereby *perpetually enjoined* from restraining or interfering in any manner in the freedom of Panhandle Eastern to contract or to finance or arrange the financing of all contracts, extensions (including the proposed new line to Detroit, whether or not built and owned by it), repairs, maintenance, service, or improvements necessary in its business through or with any firm, person, or corporation with whom it may choose to deal (and to that end any such financial or contractual arrangements made by Panhandle Eastern to consummate its contract dated August 31, 1935, with the Detroit City Gas Company shall be subject to the approval of the trustee who shall receive, and consider the advisability of, alternative methods of financing from any responsible underwriter);

That if such contracts be made with or financial assistance be secured from Columbia Gas, such contracts may be made or financial assistance furnished only upon terms or conditions which do not in *any* way, directly or *indirectly*, presently or *potentially*, confer upon Columbia Gas any voting rights, control or participation in the management of Panhandle Eastern or confer any rights of ownership in the works or properties of Panhandle Eastern except as security for the investment; and in the event that Columbia Gas shall, with respect to any contract or any contractual rights of any kind whatsoever or any property held as security or used in connection with any contract, in *any* way prevent the *free* transportation, sale, and distribution of gas by Panhandle Eastern, then upon application to this Court or any court of competent jurisdiction Panhandle Eastern shall have the right (1) to the *immediate appointment of a trustee to hold such contract rights or property* subject to the purposes and provisions of this decree; (2) to immediate *specific* performance of *any and all* contracts with Columbia Gas; and (3) to *immediate* injunction, both temporary and *final*, as well as any other appropriate remedy at law or in equity, including any remedy hereunder.

V

That jurisdiction of this cause and of the parties hereto is retained for the purpose of giving full effect to this decree and for the enforcement of strict compliance herewith and the punishment of evasions hereof, and for the further purpose of making such other and further orders and decrees or taking such other action as may from time to time be necessary to the carrying out hereof; and that Panhandle Eastern, upon proper application, may become a party hereto for the limited purpose of enforcing the rights conferred by Section IV hereof.

Dated, Wilmington, Delaware, January 29, 1936.

(Signed) JOHN P. NIELDS,
United States District Judge.

PART IV. SUPPLEMENT

THE CITIES ALLIANCE

Purpose—Achievements—Program

1. Q. What is The Cities Alliance?—A. The Cities Alliance is an organization of municipalities working together for the reduction of gas rates.

2. Q. How does a City join The Alliance?—A. A resolution by its Common Council entitles a City to membership. The Alliance is financed voluntarily by Cities that directly benefit from its work. There is no membership fee.

3. Q. When was it organized?—A. It was organized January 28, 1935, at Columbus, Ohio, by municipal delegates from eight states. They believed lower gas rates could be obtained for their cities either by (1) replacing artificial gas with a low cost natural gas service, or by (2) obtaining reductions in the wholesale price of natural gas from the pipe line companies.

4. Q. What steps were taken by The Cities Alliance toward this objective?—A. It sought (1) a federal investigation of monopolistic practices in the natural gas industry, and (2) rigid enforcement of the anti-trust laws. The cities believed that certain holding companies were conspiring to maintain exorbitant gas rates by preventing competition.

5. Q. Was federal assistance obtained by The Alliance?—A. Yes; Senator Gerald P. Nye pointed to the need for a Senate inquiry, and a resolution to that end was introduced by Senator James Couzens. The investigation was undertaken by the Federal Trade Commission. In addition, the Department of Justice filed an anti-trust action in a federal court against the Columbia Gas & Electric Corporation, et al.

6. Q. What is the future program of The Cities Alliance?—A. A further marshalling of the cities' strength, through State Committees, is the immediate need. Vigilant enforcement of the anti-trust laws and federal regulation of interstate gas pipe lines will be sought at Washington. Other corrective measures by state legislatures and regulatory commissions will also be necessary. In addition, the cities desiring natural gas service will co-operate with gas producers to obtain low cost supplies.

7. Q. How can The Alliance aid the Cities of Ohio, for example?—A. Facts at hand indicate that an unregulated monopoly is responsible for unfair gas rates generally throughout that state. This monopoly must be compelled to desist from—

Suppressing independent competition, in violation of the anti-trust laws. Monopolizing and thwarting development of Ohio's natural gas resources. Secreting exorbitant profits from Ohio sales among subsidiary companies in other States.

Alleging that natural gas reserves are inadequate, when the statement is untrue.

Penalizing domestic consumers for increased use of natural gas.

Preventing lower cost natural gas from entering Ohio in competition with monopoly's supplies.

Charging rates based partly upon unwise or improper investments, thereby forcing consumers to pay the cost of deliberately bad management.

Limiting natural gas sales for industrial and other uses, thereby compelling domestic consumers to carry the burden (through high rates) of charges which would otherwise be shared by industry.

8. Q. Has any public utility company in Ohio alleged that its "natural gas reserves are inadequate," despite statements to the contrary by its own officials?—

A. Yes. Such allegations have been contained in paid newspaper advertising by subsidiaries of the Columbia Gas & Electric Corporation, notably at Toledo. Further references to this subject are found on pages 6, 7, 48, 59, 62, 68, 79, 89, and 91.

9. Q. What measures have been taken to correct the Ohio situation?—A. An OHIO DIVISION of The Cities Alliance has been organized. Detailed information can be obtained from the elected chairman, Mr. William C. Reed, chairman of the Public Utilities Committee of Cleveland's City Council. His business address is 816 Standard Building, Cleveland. More than 30 Ohio municipalities have formally joined The Cities Alliance.

10. Q. Where did the proposal for organizing The Cities Alliance originate?—A. It originated in Milwaukee in January 1935, as the suggestion of a Citizens' Committee on Public Utilities to Mayor Daniel W. Hoan. It followed the Committee's inquiry into a charge by U. S. Senator Nye that "whole populations of cities and states have been 'sold down the river' in secret bargainings among the natural gas monopolists." Mayor Hoan's proposal was made public in this form.

MILWAUKEE, WIS., *January 10th, 1935.*

After conference with members of the Citizens' Committee on Public Utilities and with Paul Betters, secretary of the U. S. Conference of Mayors, I am proposing

that an alliance of cities be formed *for the purpose of obtaining lower gas rates* through the economic development of the Nation's vast natural gas reserves and the encouragement of transporting natural gas to unserved and eager markets.

The Citizens' Committee of Milwaukee undertook a study of this subject as a result of charges that a conspiracy exists among major natural gas pipe line companies to keep natural gas out of the larger cities until such time as independent competition has been eliminated. Since Wisconsin is the only state between the Rockies and the Alleghenies that is totally *without* the advantage of natural gas, the committee's inquiry necessarily assumed a special importance to Milwaukee.

I am, therefore, suggesting to Mayor Frank Couzens¹ of Detroit that either he, or John W. Smith, president of the Detroit City Council, should accept the chairmanship. Our Citizens' Committee has urged Milwaukee's full co-operation, and I believe that the *U. S. Conference of Mayors* and the *national and state municipal leagues* will support the alliance program.

While attending the Crime Conference at Washington last month I became acquainted with Senator Nye's charges. I believe that a Senatorial investigation of monopolistic practices in the natural gas industry is imperative, not only for the protection of millions of gas consumers, but likewise to insure an economic and unhampered development of natural gas resources. Interior Secretary Ickes has been quoted as stating that one billion cubic feet of natural gas is blowing into the air daily in the Texas Panhandle. This criminal waste would end immediately *if independent gas producers and land owners were insured markets for their gas.*

While producers have been unable to market their gas, many large cities have been unable to purchase adequate supplies of natural gas from the pipe line companies because of exorbitant prices demanded or because independent competition has been destroyed. There appears to be revealed such *flagrant disregard of Federal law* by pipe line companies that a thorough and public examination of the industry should be made. The vigilance shown by Mayor Couzens and Councilman Smith merits their leadership in this proposed alliance of cities.

DANIEL W. HOAN,
President, U. S. Conference of Mayors.

11. Q. Which cities were represented at the Columbus conference?—A. Detroit and Hamtramck, Michigan; Wheeling, W. Va.; Louisville, Ky.; Indianapolis and South Bend, Ind.; Chicago, Ill.; St. Louis, Mo.; Milwaukee and Hartford, Wis.; St. Paul, Minn., and Cleveland, Cincinnati, Toledo, Columbus, Dayton, Lima, Crestline, and Delaware, Ohio. John W. Smith, president of Detroit Common Council, was elected Chairman, and Mayor Hoan, president of the U. S. Conference of Mayors, Vice-Chairman of The Cities Alliance.

12. Q. Why were Detroit and Milwaukee named to head the Alliance?—A. As the two largest midwest cities deprived of a natural gas supply they were in strategic position to expose the natural gas monopolists. Wisconsin is the only state between the Rockies and the Alleghenies that is totally without a natural gas supply.

13. Q. What steps were taken by The Cities Alliance following its formation?—A. City Councils, State Legislatures and Public Utility Commissions were spurred to investigate the natural gas monopolists locally and to press their findings upon the federal government. These agitations were inspired by Alliance members, or were precipitated by campaign publicity:

- A. Detroit, St. Louis, Toledo, St. Paul and other cities conducted inquiries and publicized the problem in the newspapers.
- B. Wisconsin cities sought legislation enabling them to organize "utility districts" for distributing gas.
- C. Missouri and Illinois commissions sought to compel pipe lines to deliver gas to municipal systems.
- D. Ohio and Michigan Legislatures investigated suppression of local gas field development.
- E. The Indiana Legislature supported The Alliance plea for a Senate investigation and directed the Indiana Attorney-General to prosecute anti-trust law violations.
- F. The Public Ownership League of America in annual convention also supported the demand for federal intervention.

¹ NOTE.—Mayor Couzens accepted Mayor Hoan's suggestion that the city of Detroit should take the initiative in organizing an alliance of cities to combat monopoly in the natural gas industry. He asked Council President Smith to take active leadership. Accordingly, a call for a conference of midwest municipal officials was sent out almost immediately. Nearly all invited cities were represented at Columbus; others pledged support of the alliance's objective. Purpose and results of the Columbus meeting have attracted national attention.

14. Q. Were these protests against gas waste, anti-trust law defiance and exorbitant rates presented direct to the federal government?—A. Yes; officials of Detroit and St. Louis, on behalf of The Cities Alliance, were particularly vigilant. The essential facts were given to all midwest Senators, to the Federal Trade Commission and the Department of Justice not only by letter, but the Alliance chairman personally reported the cities' plight at Washington.

15. Q. Why did the cities throw their spotlight on Columbia Gas & Electric Corporation?—A. The action was justified by these facts:

Substantial rate reductions could be effected in Indiana and Michigan if natural gas were made available to replace artificial gas at an honest price. Columbia was seeking higher rates in Ohio on the plea of dwindling supplies; the importation of cheap Texas gas would invalidate that plea.

The only available Texas supply was contained in the Panhandle Eastern Pipe Line. Columbia would not permit it to be marketed at reasonable prices for fear that its Ohio rate structure would be endangered.

Columbia's restraint on Panhandle Eastern prevented millions of consumers from obtaining lower rates and constituted an attack upon society which municipal officials could not longer ignore.

The Alliance believed that, if monopolistic domination of midwest markets were removed, the independent producers of the Texas Panhandle could market their gas and would end its waste.

16. Q. What are the chief characteristics of Detroit's natural gas service, resulting from The Cities Alliance program?—A. Natural gas from Texas and southwest Kansas was turned into Detroit's distribution system July 7, and the changeover to a "straight natural" service was completed November 7, 1936. The contract between the Detroit City Gas Co. and the Panhandle Eastern Pipe Line Co. calls for a maximum delivery of 90 million cubic feet per day. The wholesale (city gate) price is 33½ cents per thousand cubic feet, based on a 70 percent load factor. Detroit is now the world's largest city using straight natural gas, supplied by the world's longest gas pipe line of 1,200 miles at a cost which compares very favorably with gate rates for other cities much nearer to sources of supply. The natural gas is retailed in the metropolitan area under the profit-sharing terms of "The Detroit Plan." The broad principles of the plan, providing automatic regulation of rates, are outlined by its originator in the following communication:

To the Honorable JOHN W. SMITH,

*President of the Common Council and Chairman of the Gas Committee,
City of Detroit.*

DEAR MR. SMITH: Complying with your request, I have outlined in the following paragraphs the major considerations and objectives that entered into the formulation of the "Detroit Plan" for establishing and regulating the natural gas service.

Consumers' Dividend.—The outstanding innovation in this plan centers on the Consumers' Dividend. This dividend is designed to effect an automatic, instantaneous adjustment of the earnings between the gas company and the consumer each year, in accordance with current business experience of the year. If conditions are such that, under rate litigation, a reduction of rate might legitimately be requested or demanded, that adjustment will immediately take effect in the form of a cash distribution to consumers directly following the fiscal year in which the excess occurred; while on the other hand, a depression of the earning rate merely effects a corresponding reduction in the current dividend, having no aftermath of instability of rate or burden of either litigation or financial strain on the utility.

The second most important phase of the consumers' dividend is that of incentive. It is a matter of public interest that the utility should have an incentive to continually increase its efficiency of operation and the volume of its business, and decrease its operating expense to a minimum consistent with such efficient operation. Rates based on a formula of a certain amount of money that the utility is entitled to earn for a certain amount of capital investment give no consideration for difference in success or efficiency of operation, give no adequate incentive to the company to reduce its operating expense, but on the contrary, in cases where a property is fully earning its allowed rate, there is a premium for increasing its operating expense, as the consumer must pay all of the cost in any case, in addition to the permitted rate of earning. This situation can result in a premium on extravagance.

It is the policy of this customer dividend that it shall accrue exclusively to the benefit of domestic consumers, not to commercial or industrial establishments or

large wholesale users. The sale of gas to these large consumers is a matter of competitive price relative to other fuels, and their business must be secured through a rate that makes the service attractive to them. Not only will the industrial establishments have secured this economic benefit, but natural gas service will exert a stimulating effect on their operations by its economy and desirability, and will tend to give industrial stimulus to the entire community. On the other hand, for domestic consumers, as defined, gas service is essentially a monopoly in which their interest must be protected by establishing authoritatively a limitation of prices. It is therefore in behalf of these consumers that rate regulation is essentially necessary, and it is desirable that all elements of the rate, including the dividend, shall be an encouragement to such consumers to use the gas service freely for their requirements for cooking and water heating. It is to accomplish this purpose that "domestic consumers" have been defined under the plan as follows:

"All consumers using gas for cooking or water heating in single family dwellings or single family apartments, separately metered. All dividends paid to these domestic consumers shall be distributed pro rata in proportion to the amount paid for gas purchased up to a maximum of 60,000 cubic feet per year of natural gas."

Valuation.—Rate regulations in the past, in general, have not been successful. The mechanical process of preparing cases and presenting them in successive hearings, over a long period of time, and the delay of the commission in handing down decisions, is only a small part of the time delay that usually occurs between the application and the final new rate, because in almost all cases the experience has been that these decisions are appealed to the courts, often in a succession of appeals, and the litigation of these appeals required years. In the meantime, the cases as heard, based on the operating information of the period immediately preceding the time of the original hearing, are no longer relevant, business conditions have changed, and the new rate, when finally adjudicated, is wholly inapplicable to the changed condition. Often the final decision is to remand the case for new evidence, and the whole process has to be gone over a second time, as in recent Supreme Court decisions in Ohio. The cost of this expensive type of controversy is so severe that the public, which must raise the funds by burden of taxation, is justifiably loath to undertake a program of rate litigation.

On the other hand, there is a natural tendency for a utility company to strive to maintain rates considerably in excess of the rate required to return a fair earning on the capital invested, thus avoiding the possibility of danger to it of finding itself with a deficient earning, as the processes by which it can secure relief through the same channel of endless litigation is so difficult and so long that it would be in danger of falling into serious financial difficulties with the possibility of disaster before final relief could be achieved.

Most of the "rate" controversies of railroads and utilities center on a theoretical valuation structure sometimes called "rate base." These valuations are tremendously expensive, artificial, unreal and, as a means of securing effective rate regulation, have been almost wholly futile. They are carried out at great expense, in most minute detail by a highly trained corps of engineers and accountants, and most of the record of rate litigation is essentially a test of ingenuity. The conclusions as to valuation by responsible witnesses on opposite sides of the various rate cases often have been in such ridiculous disparity that the courts themselves have expressed a scandalized state of shock.

Incentive.—Where the economic incentives of two partners in any situation are parallel or have a common objective, there is little possibility of controversy, as the natural desire of each party is for the same result; such is the relationship of company and consumers that this dividend seeks to attain. On the other hand, where incentives are in opposite directions, controversy, conflict, and the destruction of value are almost inevitable consequences.

On the basis of the "Detroit Plan" of an agreed "base earning" and a division which is shared between the consumers and the company, the company is permitted to increase its own profits as a reward for decreasing the cost to the consumer. An increase in the volume of business and reduced operating expense, achieved by efficiency of operation, both act to increase the earnings available for division between the company and consumer.

Promotional rate.—The frequent reference in all of the statements of the "Detroit Plan" to promotional rates as a general term, without specific mention of a schedule, might indicate an avoidance of the inevitable issue of a rate schedule. This is not, however, the case; the words are used in a very definite sense in this connection.

There is a point of maximum revenue at low prices with large unit volume of sale, which is the point in price level down to which the utility selling the product and the public using the product share a common benefit in the reduction of prices. This creates a maximum incentive to both the public and the utility to find and use this price level for its rate schedule. It is in this definite sense that we refer to "promotional rates" in the "Detroit Plan."

It is the confident expectation that this plan will provide, among other things, a virtually automatic substitute for all future rate regulation in this utility, and that it will furnish an incentive for the perpetual and unlimited increase of economy, efficiency, and maximum market development of the natural gas business in Detroit, inasmuch as no limitation is placed on the ultimate earnings of the company, other than that they be shared in the proportions formulated.

It is also expected that it will develop a popular interest in the success of the gas company's operation that will tend to create mutual co-operation, rather than controversy. It is further expected that the business will develop to the point where the annual dividend check will be a welcome visitor in each Detroit home.

General application.—As chairman of The Cities Alliance you will recognize that the basic principle of this Detroit Plan may be adapted to a wide variety of utility problems now confronting municipal officials. If such issues are met in a spirit of co-operation rather than of controversy, and if the local utility has been conservatively financed on sound securities, it should not be difficult for both parties to agree on a base earning sufficient to support a healthy credit rating, so that the utility may carry on its public service obligations.

The base earning that is agreed upon, however, should be related on a unit basis to the number of meters, in order to establish a precedent that will eliminate future valuation controversies. This base earning should be set at a point substantially below the normally anticipated earning, and provision should be made for a graduated division of the excess earnings between the utility stockholders and the domestic consumers. For competitive services, such as house heating and industrial loads, the utility should be free to establish rates designed for maximum earnings (no discrimination). All earnings above base earning should go into the dividend fund.

The history of such operation will show a progressive reduction, from year to year, in the net cost of services to domestic consumers, thereby promoting a constantly greater volume of business. With the interest of consumers and stockholders alike centered on the same result—greater sales and more economical operation—controversies over rates and management will be minimized or eliminated. A wide use of this principle will do much to relieve the tension and suspicion currently marking the public's attitude toward utility groups. Obviously, it is not possible to formulate a set of rules by which the Detroit Plan can be automatically fitted to every local situation, for each application of its principles demand—and deserve—a detailed and competent analysis of all factors and a specific adaptation of the Plan to the problem under consideration.

Respectfully,

FRANK P. FISHER,
Consulting Engineer.

FPF/W

DECREES PUTTING INTO EFFECT THE DETROIT PLAN—ENTERED IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE, MICHIGAN, IN CHANCERY AND THE DISTRICT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF MICHIGAN, SOUTHERN DIVISION, IN EQUITY

THE CORPORATION COUNCIL, CITY OF DETROIT, MICHIGAN,
December 11, 1935.

To the Honorable, the Common Council:

GENTLEMEN—On October 21st last, you transmitted to this office a report by Mr. Frank P. Fisher on proposed terms and conditions for natural gas service for the Detroit area and you directed that this Department make a study of the proposal for the protection of the interest of the City.

We have had many conferences with attorneys representing the Detroit City Gas Company and we have arrived at the conclusion that in order to settle and compromise the problems of rates and service existing between the Detroit City Gas Company and the City of Detroit and secure natural gas that two things should be done:

First, that the case now pending in the Circuit Court for Wayne County, which involved the reasonableness of the April 8th rate schedule, should have entered therein a decree in manner and form as per the attached draft which has been approved by James O. Murfin, attorney for the Detroit City Gas Company.

Second, that the case pending in the United States District Court, respecting a rental charge, should be terminated by the entry of a decree therein in accordance with the attached copy which has been approved by Attorney Murfin on behalf of the Gas Company.

We, therefore, recommend that your Honorable Body adopt a resolution directing this office to enter these decrees in the respective cases.

Respectfully submitted,

RAYMOND J. KELLY,
Corporation Counsel.

JAMES H. LEE,
Special Assistant Corporation Counsel.

RESOLUTION INTRODUCED BY COUNCILMAN SMITH TO THE HONORABLE, THE COMMON COUNCIL OF THE CITY OF DETROIT, DECEMBER 17, 1935

Whereas the Corporation Counsel did recently transmit a communication to this Common Council enclosing two proposed decrees to be entered in the litigation in the United States District Court and the Wayne Circuit Court, between the City of Detroit and the Detroit City Gas Company; and

Whereas these proposed decrees have been recommended by the Gas Committee and the Mayor's Special Committee on Gas as the means for settlement of the dispute between the City of Detroit and the Detroit City Gas Company and as a program for the bringing of natural gas to the City of Detroit; and

Whereas this body has had several meetings and discussions with reference to the entire so-called gas controversy, and it is of the opinion that the recommendations of the Gas Committee and the Corporation Counsel should be concurred in; therefore, be it

Resolved, that the Corporation Counsel be and he hereby is instructed to file the two proposed decrees, a true copy of which decrees were recently transmitted to this body by the Corporation Counsel.

Approved as to form:

WALTER BARLOW,
Chief Assistant Corporation Counsel.

Adopted December 17th, 1935, as follows:

Yeas—Councilmen Bradley, Castator, Engel, Lindsay, Lodge, Smith, and the President Pro Tem—7.

Nays—None.

STATE OF MICHIGAN—IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE—IN CHANCERY

CITY OF DETROIT, A MUNICIPAL CORPORATION OF THE STATE OF MICHIGAN,
PLAINTIFF, No. 239461 *vs.* DETROIT CITY GAS COMPANY, A CORPORATION OF
THE STATE OF MICHIGAN, DEFENDANT

At a session of said Court held in the County Building in the City of Detroit, Wayne County, Michigan, on the 23rd day of December, 1935.

Present: Honorable Ira W. Jayne, Circuit Judge.

The above entitled cause coming on for hearing on this 23rd day of December, 1935, and the Court having examined the pleadings and heard statements of counsel with respect to the issues involved and counsel having announced that the parties hereto have arrived at a compromise and settlement of the matters in controversy in this suit and wish to set forth in this Decree a preliminary statement in manner and form as follows:

Whereas in the latter part of 1934 the said Company did announce a proposed increase in its rate schedule, which increased schedule went into effect on April 8, 1935; and

Whereas the said City did seek in this cause to enjoin the promulgation of such rate schedule until the Court had passed upon the reasonableness of such rates but notwithstanding which the schedule did become operative and go into effect on April 8, 1935; and

Whereas during the time the City was preparing its evidence in this case a possibility arose of a different solution of the Detroit gas problem as a result of

many years of effort, which alternative is a plan for substituting for the present manufactured gas service, a service of natural gas of greater heating value and lower cost to the distributing company; and

Whereas the City's objective, both in the present case and in the negotiations for natural gas, has been to secure the best possible service to Detroit gas consumers at the lowest possible prices; and

Whereas the said Company has entered into a contract for the bringing of natural gas from the State of Texas, which it is anticipated will be available on or about July 1, 1936; and

Whereas the introduction of natural gas in the near future will necessitate an entirely different type of rate schedule in any case, so that it now appears that the litigation of the manufactured gas rate is of only temporary interest; and

Whereas, the plan that has been developed for natural gas will also, by agreement, be applied retroactively to the limitation of earnings under present manufactured gas rates; and

Whereas, in mutual co-operation between the said Company and the City, a plan has been formulated for the natural gas service, based on broad basic principles of low promotional rates, and a financial incentive for the said Company to continue lowering the rates and increasing the efficiency of its operation as the business develops; and

Whereas, while this plan will operate greatly to the benefit of Detroit consumers, the fullest benefit will only be realized by the carrying out by the said parties of the spirit of the agreement in fullest good faith; and

Whereas, the plan briefly involves the establishment of a base earning sufficient to insure the Company's financial stability and credit standing, which will enable it to press vigorously the development of the new natural gas service, and with the increase of business the added profit above this base earnings, under the plan, is to be divided with the domestic consumers in the form of an annual dividend pro rata to their use of gas; and the first additional profit of \$550,000 being divided equally and thereafter the profits being proportioned three-quarters to domestic consumers and one-quarter to the Company; and

Whereas, the consumers thus become partners with the owners of the Company, sharing in all profits above the base earning; and

Whereas, this dividend effects a mutual incentive to the said Company and the consumers to increase indefinitely the efficiency of operation and the volume of business, and gives a practical limitation of earnings and provides an immediate and automatic regulation of domestic gas rates by returning to the domestic consumers the larger share of any extraordinary increase of earnings; and

Whereas, the plan also involves a complete agreement that the Company will make full use of the principle of promotional rates to both industrial and domestic consumers, i. e., the well-known principle of increasing the volume of sales by progressively lowering prices, that has been so successful in developing the automobile industry; and

Whereas, this principle requires freedom and flexibility in changing prices as the business develops; and

Whereas, it is mutually recognized that the part the City has taken in working out this problem is a large factor in making natural gas available here, and securing it at prices very low, as compared with other large cities similarly situated; and

Whereas, this agreement is formulated on broad lines with a maximum of flexibility in its application, and it is an essential consideration that it should be carried out by the said parties in a spirit of fairness and good faith;

Now, Therefore, It Is Hereby Stipulated and Agreed between the parties hereto, by their respective counsel, that a Consent Decree be entered in this cause; and

It Is Therefore Ordered, Adjudged and Decreed as follows:

I. The rate schedule for manufactured gas promulgated by the defendant Company on April 8, 1935, shall be subject to the limitation of earnings provided in the subsequent sections of this decree, governing a limitation and division of earnings between the Company and the consumers, and shall otherwise remain in full force and effect, as to each consumer, until such time as natural gas service has been effected, or until such time as same may be modified under the provisions of this Decree.

II. It is mutually agreed that the defendant Company shall receive, as a base earning, the sum of \$3,850,000 net revenue per annum as a return on its present property.

III. To this base earning shall be added a sum equal to 7% of all net additions to its present investment in property and assets, used and useful in the natural or manufactured gas service in each fiscal year. In the event that the parties do not agree upon said net additions to present investment, the correct amount shall be determined by this Court upon application of either party, on a full and complete hearing thereon.

IV. When the defendant Company's net earnings in any fiscal year is in excess of the base earning, as above defined, the said excess or additional earning shall be divided between the domestic consumers and the Company in the following proportions:

The first \$550,000 of such excess earnings for said year shall be divided one half to domestic consumers, as herein after defined, and one half to the defendant, and all additional earnings for such year in excess of \$550,000 above the base earning shall be divided in the proportion of $\frac{3}{4}$ to the domestic consumer and $\frac{1}{4}$ to the defendant Company.

V. This division to domestic consumers shall be in the form of an annual dividend, ascertained after the close of each fiscal year. Domestic consumers entitled to a dividend shall be defined as all consumers of gas for cooking or water heating, in single or two family dwellings, or in single family apartments which are separately metered.

VI. Said dividends shall be paid to such domestic consumers pro rata to the amount paid by them for gas purchased up to a maximum of 60,000 cu. ft. per year or its equivalent.

VII. For the purposes of these dividends, the defendant Company is to establish a fiscal year closing approximately on the anniversary date of the beginning of natural gas service.

Earnings and dividends will be ascertained and announced as soon after the close of each fiscal year as practicable, and the dividends paid within ninety (90) days after the close of the fiscal year. Payment may be made by check to the order of consumer, or by a credit on the consumers' account, with the defendant Company.

All dividends not claimed by consumers within two years from the date the same become payable shall be barred and the sums so barred shall be added to the consumers' dividend fund, it being the intent and purpose of this agreement that consumers' dividends so used shall constitute a fund solely for the benefit of domestic consumers, as defined, and that no part thereof shall revert to the defendant Company.

VIII. In determining the defendant's net earnings for the purpose of this decree, charges against gross revenue shall be made in accordance with the defendant's present accounting practice.

IX. The defendant's books shall be audited, for the purpose of verifying defendant's net earnings annually by a certified public accountant, to be agreed upon by the City and the Gas Company, and in the event the parties cannot agree, the Judge having jurisdiction in this case shall designate a suitable firm of certified public accountants for this purpose. The cost of such audit shall be paid by the Company as an item of its operating expense.

X. An initial schedule of rates for natural gas, in compliance with the basic principle of promotional rates heretofore described, shall be promulgated by the defendant Company not later than May 1st, 1936.

XI. The defendant Company is to reimburse the plaintiff for the cost and expense of its gas investigation during the current year.

XII. It is not the intention of the parties to this cause that this decree shall in any wise alter or change any of the legal or equitable rights which either of the parties hereto may have as of the time immediately before the entry of this decree, and it is understood and agreed and so decreed that any and all such legal or equitable rights of either of the parties hereto shall continue and remain in full force and effect notwithstanding any of the provisions of this decree.

XIII. Any of the terms of this decree may be modified or terminated by the Court upon application of either of the parties hereto and on a full and complete hearing upon said application.

XIV. It is the intention of the parties hereto that this Court shall hereafter be the forum for the determination of controversies which may arise between the parties hereto until such time as said parties shall discontinue the operation of this decree.

XV. The Court hereby expressly reserves jurisdiction to make such orders or modifications of this decree as, from time to time, may be necessary in the premises.

ARTHUR WEBSTER,

Circuit Judge, Acting for and in absence of Judge Ira W. Jayne.

Countersigned:

JOHN J. PLAS,
Deputy Clerk.

We Consent:

RAYMOND J. KELLY,
Corporation Counsel, and

JAMES H. LEE,
*Special Assistant Corporation Counsel, Attorneys for Plaintiff
City of Detroit.*

J. O. MURFIN,
ANGELL, TURNER, DYER & MEEK,
Attorneys for Defendant, Detroit City Gas Company.

UNITED STATES OF AMERICA—IN THE DISTRICT COURT OF THE UNITED STATES
FOR THE EASTERN DISTRICT OF MICHIGAN, SOUTHERN DIVISION

DETROIT CITY GAS COMPANY, A MICHIGAN CORPORATION, PLAINTIFF, *vs.* CITY
OF DETROIT. A MUNICIPAL CORPORATION OF THE STATE OF MICHIGAN, FRANK
MURPHY, AS MAYOR OF THE CITY OF DETROIT, AND FRANK COUZENS, WILLIAM
P. BRADLEY, FRED CASTATOR, JOHN S. HALL, RICHARD LINDSAY, JOHN W.
LODGE, JOHN SMITH, EDWARD J. JEFFRIES, JR., AND EUGENE VAN ANTWERP,
AS COUNCILMEN CONSTITUTING THE COMMON COUNCIL OF SAID CITY OF
DETROIT, DEFENDANTS. IN EQUITY No. 5,567

At a session of said court held in the court room in the City of Detroit, on the
23rd day of December, 1935.

Present: The Honorable Edward J. Moinet, District Judge.

The above entitled cause coming on to be heard upon the pleadings, the report
of the Master and exceptions thereto, by consent of all the parties it is ordered,
adjudged and decreed:

(1) The right of the City of Detroit to enact a so-called rental charged is neither
considered nor passed upon in this proceeding.

(2) Because of the fact that since the enactment of the rental ordinance, the
parties hereto have arrived at a compromise and settlement of the matters in
controversy respecting the rates and service, and a solution of their problem, which
involves a natural gas service for the City of Detroit; and because of the fact that
the introduction of such natural gas service will necessitate an entirely different
type of rates schedule, this rental ordinance, which was predicated upon manu-
factured gas service, is clearly unreasonable in the amount of the rental charges
therein, and for that reason alone, such rental charges cannot be collected.

(3) Because of the foregoing conclusions, it is ordered, adjudged, and decreed
that the defendants in the above entitled cause are permanently enjoined from
in any way carrying out or enforcing the provisions of the specific ordinance in
question.

EDWARD J. MOINET,
District Judge.

By Consent:

RAYMOND J. KELLY,
Corporation Counsel.

JAMES H. LEE,
*Special Assistant Corporation Counsel, Attorneys for Defendant,
City of Detroit.*

J. O. MURFIN,
ANGELL, TURNER, DYER & MEEK,
Attorneys for Plaintiff, Detroit City Gas Company.

EXHIBIT 14

RICHEST MARKET FOR NATURAL GAS AWAITS PIPE LINE BUILDERS

By H. STANLEY NORMAN

NEW YORK, September 20.—Despite the fact that 180,000 miles of natural gas main transit and distribution pipe lines finger into parts of all but 15 states, including the District of Columbia, the richest potential market in the world remains unexplored. This highly attractive potential market is concentrated along the north Atlantic seaboard roughly bounded by Philadelphia on the south, Boston on the north and a projection of the western boundary of New Jersey to the two preceding points.

The most attractive potential natural gas market resting outside that area is Wisconsin, where in 1936 there were 358,080 customers who used 13,717,300,000 feet of manufactured gas during the year. The District of Columbia, North and South Carolina, Delaware, Idaho, Oregon and Nevada are the only states other than Wisconsin and New England entirely lacking natural gas distribution to some extent.

Despite the fact that a few cities in western and northern New York are served by natural gas facilities, the larger cities being Rochester and Buffalo, 88.8 percent of the state's gas customers are supplied with manufactured gas. The State of New York, according to the 1936 annual summary of the American Gas Association, contained 3,003,540 gas customers, but only 334,450, or 11.2 percent were served with natural gas.

Possibly indicative of the New York market potentialities, the 334,450 customers served with natural gas consumed 52,137,900,000 feet during 1936 or an average of 155,891 feet to each user. In contrast, the 2,669,090 customers served with manufactured gas each used an average of 32,042 feet during 1936.

How to capture, or at least participate in, the rich northern Atlantic seaboard market long has been a problem considered by the keenest engineers in the natural gas industry. Countless proposals for tapping metropolitan New York have been prepared, but so far the cost of all schemes has been considered prohibitive. In the densely populated East, the right of way requirements are a consideration of major importance, although this one phase of bringing natural gas to New York and other East Coast cities fades into insignificance compared with the other considerations involved.

Cost estimates on bringing natural gas service to the extreme northeastern seaboard vary with the steel market, labor conditions and the status of general business. When cost estimates reach the lower brackets, however, financing becomes practically impossible. There is no doubt in the minds of men in the gas utility industry that eventually the New York, Philadelphia and Boston markets will be tapped, but guesses as to how soon range from the near future to the indefinite future.

One of the most important factors in considering introduction of natural gas to the eastern seaboard is the cost of converting manufactured gas distribution and consumer facilities to those suitable for the natural product. The task of distributing natural gas in New York, for example, would be hardly more than started by completion of a main transmission line from an adequate source of supply in the Southwest to the Hudson River. That particular part of the program is comparatively simple, although it would meet the undivided opposition of the Pennsylvania and Illinois coal industries.

There is the further problem of franchise arrangements existing in the eastern cities, agreements between manufactured gas utility companies and municipalities which have been in existence longer than the natural gas industry. There are the further all-important financial links between manufactured gas utilities, the coal industry and the railroads. In no few instances the existing links are traceable back to the same interests which would be of necessity called upon to finance introduction of natural gas service to Philadelphia, Newark, New York and Boston. Still another obstacle is that many financial institutions deeply rooted in the manufactured gas utility, the coal and the railroad industries are equally firmly entrenched in the natural gas business.

The most eastern point in New York served with natural gas is Syracuse, which in addition to Rochester and Buffalo constitute the only large cities in the State now supplied.

Gas utilities have made relatively few steps toward expansion during recent years and there is no secret that caution has been the direct out-growth of trends toward regulation in Washington and to a smaller extent in producing States.

Predictions have been made by some authorities in the natural gas industry that business will be directed in all its essentials from a central bureau in Washington within 10 years, if present trends are continued and expanded. This opinion is not universally shared, but even those who minimize the present and future influence of government admit current trends must be reversed if the extremes in regulation are to be avoided.

The space for expansion of the natural gas industry rests chiefly in the industrial South, namely: North Carolina and South Carolina; in the densely populated East North Central states which include Illinois, Indiana, Michigan, Ohio and Wisconsin; in the Middle Atlantic states of New Jersey, New York and Pennsylvania and in the New England states of Massachusetts, Connecticut, Maine, New Hampshire, Rhode Island and Vermont.

The latest available figures showing data on the natural gas industry for June and for six months ending June 30 as compiled by the American Gas Association appear below:

	Month of June			6 months ending June 30		
	1938	1937	Percent change	1938	1937	Percent change
Customers:						
Domestic (including house heating).....	6,451,100	6,290,900	+2.5	(1)	(1)	(1)
Commercial.....	453,200	436,300	+3.9	(1)	(1)	(1)
Industrial.....	35,700	36,100	-1.1	(1)	(1)	(1)
Miscellaneous.....	2,000	2,000	-----	(1)	(1)	(1)
Total.....	6,942,000	6,765,300	+2.6	(1)	(1)	(1)
Gas sales (M cubic feet):						
Domestic (including house heating).....	19,648,000	18,693,700	+5.1	214,025,100	220,512,300	-2.9
Commercial.....	4,859,200	4,760,700	+2.1	59,495,100	62,470,400	-4.8
Industrial.....	43,243,100	54,205,100	-20.2	284,571,900	346,815,200	-17.9
Electric generation.....	13,600,100	15,477,100	-12.1	75,751,300	74,138,200	+2.2
Total industrial and electrical generation.....	56,843,200	69,682,200	-18.4	360,323,200	420,953,400	-14.4
Miscellaneous.....	1,146,800	1,357,600	-----	7,560,300	8,445,100	-----
Total.....	82,497,200	94,494,200	-12.7	641,403,700	712,381,200	-10.0
Revenue (dollars):						
Domestic (including house heating).....	15,131,000	14,543,300	+4.0	144,239,600	146,233,100	-1.4
Commercial.....	2,578,100	2,530,400	+1.9	27,721,600	28,479,200	-2.7
Industrial and electric generation.....	9,187,800	11,475,200	-19.9	60,246,400	71,543,100	-15.8
Miscellaneous.....	172,300	184,500	-----	1,267,400	1,379,500	-----
Total.....	27,069,200	28,733,400	-5.8	233,475,000	247,634,900	-5.7

¹ See June.

Status of Gas Fuel Industry

State

State	Population served		Total population census of 1930	Natural gas customers	Manufactured gas customers	Natural gas sales, M cubic feet	Manufactured gas sales, M cubic feet
	Natural gas	Manufactured gas					
Alabama	304,100	367,300	2,646,248	27,740	42,030	14,889,500	5,032,900
Arizona	106,000	16,600	1,435,573	20,500	2,040	1,538,800	55,700
Arkansas	410,000	8,300	1,854,482	71,750	580	25,674,100	19,000
California	5,363,300	34,400	5,677,251	1,547,310	6,200	174,020,900	183,600
Colorado	565,300	33,400	1,035,791	98,310	2,930	19,140,000	65,200
Connecticut	1,400,700	1,606,903	1,606,903		291,310		9,864,900
Delaware	171,000	238,380	238,380		33,680		1,483,700
District of Columbia	550,000	550,000	550,000		144,540		8,908,300
Florida	31,500	638,700	1,468,211	3,720	93,740	1,004,100	2,584,700
Georgia	709,300	331,600	2,908,506	75,170	25,150	11,545,300	837,100
Idaho		51,500	445,032		3,660		110,100
Illinois	433,600	5,579,400	7,630,654	90,070	1,206,740	49,964,900	45,432,000
Indiana	282,600	1,698,700	3,238,503	40,660	323,040	6,206,000	13,210,700
Iowa	282,900	702,500	2,470,939	55,180	138,820	19,801,300	4,466,500
Kansas	1,163,500		1,880,999	215,620		63,702,700	
Kentucky	915,500	147,200	2,614,589	173,640	4,000	13,088,000	129,000
Louisiana	1,012,600		2,101,593	169,840		119,879,400	
Maine		480,800	797,423		37,410		1,149,100
Maryland	63,000	1,161,100	1,631,526	14,790	237,280	655,200	13,589,500
Massachusetts		4,038,300	4,249,614		818,960		25,517,900
Michigan	1,930,700	1,896,100	4,842,325	461,220	264,880	23,036,300	10,507,600
Minnesota	88,900	1,107,200	2,563,933	14,000	244,370	8,170,000	8,222,000
Mississippi	331,300		2,009,891	44,630	241,500	11,916,800	
Missouri	860,000	1,161,100	3,623,367	161,200	21,000	35,068,000	7,541,400
Montana	194,400	16,000	337,606	43,010	1,060	21,180,900	285,000
Nebraska	591,800	246,700	1,377,963	62,660	56,830	14,453,100	2,847,100
Nevada		35,000	91,058		3,000		87,100
New Hampshire		231,400	465,233		33,190		1,009,200
New Jersey		3,964,900	4,041,334		904,090		28,749,400
New Mexico							
New York	86,000	11,099,700	12,588,066	16,490	2,669,090	5,094,500	86,523,400
North Carolina	1,634,300	697,100	3,170,276	334,450	43,530	52,137,900	1,519,900
North Dakota		82,800	680,845	4,990	12,180	1,565,100	296,500
Ohio	35,100	232,100	6,646,697	1,230,520	40,710	124,991,100	1,184,000
Oklahoma	4,961,400		2,396,040	254,120		64,572,100	
Oregon	1,241,600	636,800	953,786		87,030		3,311,600
Pennsylvania		4,690,700	9,631,350	665,410	873,250	97,385,100	31,461,600
Rhode Island	4,289,600	625,100	687,497		122,690		4,419,600
South Carolina		293,900	1,738,765		24,750		911,500

State	Status of Gas Fuel Industry						
	Population served		Total population census of 1930	Natural gas customers	Manufactured gas customers	Natural gas sales, M cubic feet	Manufactured gas sales, M cubic feet
	Natural gas	Manufactured gas					
South Dakota.....	66,100	54,900	692,849	14,990	8,430	5,415,800	222,900
Tennessee.....	306,400	457,000	2,016,556	43,650	34,860	7,658,500	1,593,200
Texas.....	3,164,200	-----	5,824,715	607,270	-----	175,030,200	-----
Utah.....	240,300	22,000	507,847	23,700	1,150	10,888,300	285,000
Vermont.....	-----	106,800	359,611	-----	18,320	-----	379,700
Virginia.....	45,000	808,700	2,421,851	5,950	113,420	353,500	3,863,200
Washington.....	10,000	790,400	1,563,396	1,130	71,600	208,000	2,837,100
West Virginia.....	802,200	35,000	1,729,205	184,180	3,620	42,226,700	93,600
Wisconsin.....	-----	1,720,800	2,939,006	-----	358,080	-----	13,717,300
Wyoming.....	104,600	-----	225,565	21,430	-----	8,170,900	-----
Total.....	32,667,100	48,126,400	122,838,177	6,801,360	9,703,870	1,230,045,000	343,261,800

NOTE.—Data on population served, customers and gas sales are as of Dec. 31, 1936. Data derived from annual reports of American Gas Association.

Further evidence that the domestic consumer is the important revenue producer in the natural-gas industry is shown by a decline of only 5.7 percent in total revenue from all sales for the first half of this year while the total volume was down 10 percent.

At the end of 1936 the United States had 179,660 miles of natural gas main and distribution lines, while the manufactured gas industry operated 90,676 miles of lines. The distribution by States follows:

State	Natural gas	Manufactured gas	State	Natural gas	Manufactured gas
Alabama.....	1,100	642	Nevada.....		88
Arizona.....	330	37	New Hampshire.....		449
Arkansas.....	3,290	13	New Jersey.....		8,534
California.....	22,480	136	New Mexico.....	840	
Colorado.....	2,010	58	New York.....	3,150	14,154
Connecticut.....		2,681	North Carolina.....		475
Delaware.....		396	North Dakota.....	410	140
District of Columbia.....		848	Ohio.....	38,720	1,113
Florida.....	60	2,072	Oklahoma.....	9,810	
Georgia.....	1,300	415	Oregon.....		2,483
Idaho.....		92	Pennsylvania.....	20,280	6,916
Illinois.....	1,760	10,610	Rhode Island.....		1,146
Indiana.....	1,480	4,816	South Carolina.....		475
Iowa.....	1,730	1,928	South Dakota.....	210	118
Kansas.....	10,380		Tennessee.....	940	822
Kentucky.....	2,950	70	Texas.....	27,700	
Louisiana.....	3,060		Utah.....	880	57
Maine.....		441	Vermont.....		198
Maryland.....	(1)	1,907	Virginia.....	(1)	1,489
Massachusetts.....		8,615	Washington.....	110	1,909
Michigan.....	3,600	5,387	West Virginia.....	8,720	58
Minnesota.....	400	2,106	Wisconsin.....		4,227
Mississippi.....	1,410		Wyoming.....	1,370	
Missouri.....	5,020	1,936	Total.....	179,660	90,676
Montana.....	1,950	29			
Nebraska.....	2,210	591			

¹ Included in Ohio.

EXHIBIT 15

Production of electric energy (kilowatt-hours) by companies controlled by or affiliated with the Morgan interests, 1934 and 1938

[Poors Manual, utilities volume, 1936 and 1939 editions, and Edison Electric Institute—weekly electric power output]

Companies	Production in kilowatt-hours	
	1934	1939
Total production for the United States.....	85,564,124,000	112,451,500,000
Columbia Gas & Electric Corporation.....	¹ 1,050,223,000	¹ 1,397,152,000
Electric Bond & Share Co.:.....		
American Power & Light Co.....	² 4,013,333,000	² 5,541,617,000
Electric Power & Light Corporation.....	² 1,923,539,000	² 2,776,528,000
National Power & Light Co.....	² 3,476,975,000	² 3,936,682,000
Niagara Hudson Power Corporation.....	² 6,393,719,000	² 7,304,559,000
Commonwealth & Southern Corporation.....	² 5,990,732,000	² 7,789,123,000
American Water Works & Electric Co., Inc.....	¹ 1,781,841,000	² 2,136,864,000
United Light & Power Co.....	¹ 1,505,770,000	¹ 1,953,205,000
Consolidated Gas Electric Light & Power Co. of Baltimore.....	² 1,149,125,000	² 1,573,045,000
Consolidated Gas Co. of New York.....	² 4,729,285,000	² 6,003,258,000
Public Service Corporation of New Jersey.....	² 2,135,937,000	² 2,678,396,000
The United Gas Improvement Co.....	¹ 3,757,203,000	¹ 4,762,812,000
Total controlled or affiliated companies.....	37,907,682,000	47,853,241,000
Percent of total production.....	44.30	42.55
Other connected companies:		
Cities Service Co.....	¹ 1,692,602,000	¹ 2,145,721,000
The North American Co.....	4,888,103,000	6,138,741,000
Total other connected companies.....	6,580,705,000	8,284,462,000
Percent of total production.....	7.69	7.37

¹ Estimated from sales.

² Includes energy purchased from other companies.

EXHIBIT 16

ERNEST O. THOMPSON, *Commissioner.*

THE STATE OF TEXAS

RAILROAD COMMISSION OF TEXAS

AUSTIN, April 13, 1939.

In re investigation of business condition by the Temporary National Economic Committee.

HON. WILLIAM T. CHANTLAND,
Attorney, Federal Trade Commission, Washington, D. C.

DEAR MR. CHANTLAND: I have your letter of March 28 in which you request the number of permits to drill that have been granted, together with the number of well completions and dry holes.

Attached you will find a report covering this data compiled for the years 1936, 1937, and 1938.

* * * * * * *

With kindest regards, I am,
Sincerely yours,

ERNEST O. THOMPSON.

[From reports of Railroad Commission of Texas]

1938

	Permits to drill		Completions			Permits to plug
	Granted	Denied	Gas	Oil	Dry	
January	1,251	34	24	967	9	263
February	1,168	48	12	708	18	315
March	1,283	43	3	902	40	244
April	1,305	70	-----	817	13	277
May	979	56	1	852	16	275
June	1,128	56	5	915	25	263
July	921	4	2	559	26	175
August	920	3	6	664	7	245
September	1,165	107	2	1,046	35	323
October	880	63	-----	634	-----	259
November	826	22	7	612	25	260
December	588	3	2	536	-----	159
Total	12,414	509	64	9,212	214	3,058

1937

January	1,232	16	18	863	16	16
February	1,288	35	16	813	17	4
March	1,752	34	15	1,019	27	12
April	1,558	15	15	981	9	273
May	1,824	37	16	1,161	44	341
June	1,516	10	26	1,143	50	277
July	1,611	58	71	1,081	59	289
August	1,362	42	23	1,086	43	302
September	1,744	17	16	1,134	42	292
October	1,386	84	21	1,106	28	281
November	1,211	49	14	988	18	260
December	985	35	13	893	30	234
Total	17,469	432	264	12,268	383	2,581

1936

January	931	22	3	572	5	40
February	1,085	83	15	390	1	27
March	1,139	38	8	594	0	19
April	1,086	41	7	730	1	22
May	1,792	91	12	733	7	27
June	1,420	47	17	810	13	26
July	1,489	79	49	893	21	12
August	1,093	1	10	812	35	14
September	1,298	36	1	864	19	24
October	1,458	84	4	829	3	6
November	1,112	3	12	772	2	13
December	1,106	42	6	742	19	6
Total	15,009	567	144	8,751	126	236

EXHIBIT 17

STATE AND FEDERAL REGULATION OF GAS AND ELECTRIC UTILITIES

PART I. STATE REGULATORY EFFORTS

The inadequacy of State control of gas and electric utilities has been portrayed in an article entitled "State Regulation of Gas and Electric Utilities Delayed or Defeated by Plea of Interstate Commerce," which appears as legal appendix L-1 at page 79 of part 73-A of the Federal Trade Commission's Report to the United States Senate on Holding and Operating Companies of Electric and Gas Utilities.¹ In the article, dated July 25, 1934, cases in point decided during the period from 1891 to 1934 are cited. Supplementary to that article cases are cited herein to bring the picture up to date.

During the past 5 years utility companies² have continued to use the plea of being engaged in interstate commerce as a means of challenging regulatory measures promulgated by State utility commissions and the jurisdiction of State courts in cases involving such companies.³

Six typical cases are cited wherein State authorities were forced to resort to litigation, which necessarily entailed expense and delay, in order to uphold their regulatory powers.⁴

Six cases are cited wherein State regulation was defeated by the utilities' plea of being engaged in interstate commerce.⁵

It is well known that under the Constitution of the United States Congress has all power to regulate commerce between the several States. Each State, by virtue of its sovereignty, has power to regulate the commerce within that State. Frequently, interstate and intrastate commerce are so completely interwoven that it is very difficult to distinguish between the two. Consequently, it is often very hard to determine the proper regulatory authority. In the gas and electric energy industries, integration of companies has been developed to such an extent that it is often extremely difficult for either State or Federal authorities to draft an effective regulatory measure (Federal regulatory measures dealt with hereinafter, pt. II). A study of the set-up in the natural-gas industry affords the best illustration of this problem.

¹ S. Doc. 92, pt. 73-A, 70th Cong., 1st sess.

² "Utility" as used herein is limited to gas and electric energy utility companies. The word "Gas" includes natural and manufactured gas.

³ Akin to the opposition to regulation is the general and persistent opposition of private utilities to the establishment of municipally owned and operating power and light plants and systems. On this phase, the case of the *City of Corning, Iowa v. Iowa-Nebraska L. & P. Co.* (Dec. 13, 1938, 282 N. W. 791) is interesting. In this case, the Iowa Supreme Court sustained a judgment amounting at the time of payment to \$7,322.91, in favor of the city, for damages for loss of earnings suffered by delay in completion of the municipal plant by reason of a temporary injunction obtained by the power company which was later dissolved.

⁴ *Re Commonwealth ex rel Rosslyn Gas Co.*, 3 P. U. R. (N. S.) 61.

Atlas Pipe Line Co. v. Sterling et al. 4 Fed. Supp. 441.

State ex rel Chas. W. Steiger et al. v. Capital Gas & Electric Co. et al., 5 P. U. R. (N. S.) 129; 139 Kans. 870 33 P. (2d), 731.

Natural Gas Pipe Line Co. of America v. Slattery et al., 21 P. U. R. (N. S.) 255; 82 L. Ed. 276; 58 Supp. Ct. 199; 302 U. S. 500.

Arkansas-Louisiana Gas Company v. Department of Public Utilities et al., 59 Sup. Ct. 770; 82 L. Ed. 1149; 304 U. S. 61.

Petroleum Exploration, Inc. v. Public Service Commission et al., 304 U. S. 209;

⁵ *State ex rel. Railroad Commission v. The Stanolind Pipe Line Co.*, 1 P. U. R. (N. S.) 198; 216 Iowa 436; 249 N. W. 366.

State Corporation Commission of Kansas et al. v. Wichita Gas Co. et al., 1 P. U. R. (N. S.) 433; 290 U. S. 551.

Community National Gas Co. v. Royse City et al., 7 P. U. R. (N. S.) 178; 7 Fed Supp. 481.

Louisiana Public Service Commission v. Baton Rouge Electric Company, 7 P. U. R. (N. S.) 336.

State ex rel. Cities Service Gas Co. v. Public Service Commission et al., 13 P. U. R. (N. S.) 61; 35 S. W. 2d 890; certiorari denied, 296 U. S. 637.

State ex rel. and to use of Panhandle Eastern Pipe Line Co. v. Public Service Commission, 14 P. U. R. (N. S.) 164; 93 S. W. 2d 675.

The natural-gas industry is peculiar in that the most important markets for the gas are quite far removed from production areas. For that reason, the most important phase of the industry is the transmission of the product to the consuming area. Due to the physical qualities of gas there is really only one efficient method of transmission—by pipe line. At present the industry is in the main dominated by large and completely integrated pipe-line companies which control units engaged in every phase of the industry, from the production of the gas to the ultimate distribution thereof. It is in the attempted regulation of the units of such organizations that State powers have proven inadequate.

A case illustrative of how the integration of a natural gas pipe-line company with local distributing companies can defeat jurisdiction of and regulation by a State public service commission is that of *State ex rel. Cities Service Gas Company v. Public Service Commission et al.* (see note 4, par. 5, supra, p. 3), decided by the Supreme Court of Missouri on September 24, 1935. In this case it was undisputed that the Cities Service Co. owned or controlled the pipe line by which natural gas was transported into Missouri and all the distributing companies involved in the case. The Missouri Public Service Commission was denied jurisdiction in the matter on a holding that the company was not a public utility, was engaged in interstate commerce, and was, therefore, not subject to the jurisdiction of the State commission. Thus the commission could have nothing to say as to the city gate gas prices exacted by the pipe-line company from the local distributing companies. The fact that the local distributing companies were engaged in commerce essentially intrastate did not alter the case.

It is largely due to their lack of authority to question city gate rates that State utility commissions are so greatly handicapped in rate making. As long as the commissions are precluded from exercising any effective control over the rates at which gas is sold to local distributing companies, all efforts on their part to bring gas to the ultimate consumer at rates found by the commissions to be reasonable and equitable will be frustrated. Even in those cases where the distribution systems are independently controlled, i e., by a municipality or some company not affiliated with any of the large pipe-line companies, and are operated wholly in intrastate commerce, State commissions are handicapped in regulating rates. A commission cannot fix a rate at which gas must be sold by the distributing company to the consumer without taking into consideration the rate at which the distributing company must purchase that gas from the interstate pipe line. *State Corporation Commission of Kansas et al. v. Wichita Gas Company et al.*,⁶ and *State ex rel. and to use of Panhandle Eastern Pipe Line Co. v. Public Service Commission*,⁷ are cases illustrative of this situation.

Mr. Justice Brandeis years ago recognized, as evidenced by his dissenting opinion in the case of *Public Utility Commission v. Attleboro Co.*,⁸ the fact that there are broad differences between companies operating essentially in intrastate commerce and those operating

⁶ 1 P. U. R. (N. S.) 433; 290 U. S. 561 (cited herein, note 4, par. 22, supra, p. 3).

⁷ 14 P. U. R. (N. S.) 164; 93 S. W. 2d 675 (cited herein, note 4, par. 6, supra, p. 3).

⁸ 278 U. S. 83.

essentially in interstate commerce. In the *Attleboro case*, Brandeis maintained that State regulation of a company engaged primarily in a business within that State, should not be defeated by the fact that a small part of the company's business was of interstate character.

A recent case (decided May 16, 1938) in which this essential difference is recognized is that of *Lone Star Gas Company v. Texas et al.*⁹ The Court found in the *Lone Star case* that the various distributors and the pipe-line company were but arms of the same organization, doing an intrastate business in the State of Texas, and that the Railroad Commission of Texas was entitled to ascertain and determine what was a reasonable charge for gas supplied through the organization to consumers within the State. The fact that one of the pipe lines cut across a corner of Oklahoma and the fact that a small portion of the gas transported to Texas consumers was purchased from Oklahoma producers, did not alter the essential intrastate standing of the company's business (in connection with the *Lone Star case*, see also *State ex rel. Charles W. Steiger et al. v. Capital Gas & Electric Co. et al.*)¹⁰

It would seem that the *Lone Star Gas Co. case* strengthened the possibility of State regulation of natural gas companies. It must be remembered, however, that the natural gas industry, at present, is, in the main, controlled by large pipe-line companies whose business is essentially interstate in character and, therefore, definitely not subject to State regulation.

PART II. FEDERAL REGULATORY ACTS

Although the importance of natural gas as an industry has increased rapidly since the first attempts to use the gas on a large scale were made in 1870, there were no attempts at Federal regulation until 1934. While the Johnson Act passed in May 1934 technically may not be considered as a Federal regulatory act, it is, nevertheless, the first act designed to aid in the regulation of gas and electric utilities.

The Johnson Act.—The Johnson Act of May 14, 1934,¹¹ was designed to aid the States in regulating utility companies. The Act was intended to give to State courts sole jurisdiction over cases involving rate orders of State utility commissions where the orders do not affect interstate commerce and where a "plain, speedy, and efficient" remedy is not available in the State courts. In other words, in a case involving an order of a State public utility commission, it was sought to relieve the commission of being brought into Federal courts upon a plea merely of diversity of citizenship.

Several probable applications of the Johnson Act, as indicated by court decisions, have been portrayed in an article appearing in the March 1937 issue of the *Harvard Law Review*.¹²

This article is primarily an analysis of two cases in which the United States Supreme Court has construed the provisions of the Johnson Act.¹³ It is found therein that in each of the two cases consideration

⁹ 304 U. S. 224; 58 S. Ct. 883. (Note: State regulation was defeated in this case upon a point of rate construction. The commerce clause, however, was found not to have been violated.)

¹⁰ 5 P. U. R. (N. S.) 129; 139 Kans. 870; 33 Pac. 2d 731.

¹¹ See 48 Stat. 775; 28 U. S. C. A., sec. 41, subd. (1).

¹² The Johnson Act: Defining a "plain, speedy, and effective" remedy in the State courts. 50 *Harvard Law Review*, 813.

¹³ (1) *Cary v. Corporation Commission of Oklahoma* (9 F. Supp. 709; affirmed 296 U. S. 452); (2) *Mountain States Power Co. v. Public Service Commission of Montana* (299 U. S. 167).

was in reference to the "plain, speedy, and efficient" clause. The following interpretative statements are quoted from the article:¹⁴

The phrase "plain, speedy, and efficient" was adopted to define the State remedy required because of an evident intention to avoid the dangerous indefiniteness of the word "adequate." Neither in its commonly understood nor in its technical meaning does "efficient" include the concept of "fairness" or "reasonableness," but like "plain" and "speedy" it refers to the externals of activity rather than to its content. It would seem, therefore, to be a poor vehicle on which to carry due process into the Johnson Act. Yet the few decisions in which the clause has been considered indicate that it will be made to serve that purpose. It is now time to consider how far the implications this "due process" interpretation will result in the nullification of the act.

* * * * *

Senator Austin attacked clause 3 on the ground that "it was not intended to have that provision read as meaning an adequate remedy." He attempted to have the word "adequate," "the customary expression in the law," substituted for "plain, speedy, and efficient," but this effort was unsuccessful. (See 78 Cong. Rec. 2019 (1934).)

After a detailed analysis of the two principal cases (cited note 3, supra, p. 10) the conclusion is reached in the article that "due process" is an essential prerequisite to the "plain, speedy, and efficient" remedy insured in the Johnson Act. It is found that in many ways this requirement of due process has been so interpreted to conform to Federal procedure so that the effectiveness of the Johnson Act as an aid to State regulation has been largely nullified.

In the case of *Mountain States Power Company v. Public Service Commission of Montana* (cited note 3, par. 2, supra, p. 10), the utility, seeking preliminary relief in the Federal district court against an allegedly confiscatory rate order, contended that a "plain, speedy, and efficient" remedy was not available in the State courts in view of a Montana statutory provision which prohibited the issuance of an injunction staying the order of the commission during the pendency of the suit in the State courts. It was found by the Supreme Court that such a statutory provision might operate in derogation of due process and result in "daily confiscation." For that reason Federal jurisdiction over the cause was upheld. In nearly three-fourths of the States a supersedeas, pending appeal of a rate order to the reviewing court, is obtainable only at the discretion of that court.¹⁵ It would seem, therefore, that this case stands in the way of effective operation of the Johnson Act.

The Public Utility Holding Company Act.—The Public Utility Holding Company Act of 1935,¹⁶ made unlawful certain transactions when engaged in by companies not registered with the Securities and Exchange Commission. These unlawful acts are set out in subsection (a) of section 4 of title 1 of the Public Utility Act of 1935. The subsection reads as follows:

SEC. 4a. After December 1, 1935, unless a holding company is registered under section 5, it shall be unlawful for such holding company, directly or indirectly—

(1) To sell, transport, transmit, or distribute, or own or operate any utility assets for the transportation, transmission, or distribution of, natural or manufactured gas or electric energy in interstate commerce;

(2) By use of the mails or any means or instrumentality of interstate commerce, to negotiate, enter into, or take any step in the performance of, any service, sales, or construction contract undertaking to perform services or construction work for, or sell goods to, any public-utility company or holding company;

¹⁴ 50 Harvard Law Review, 613, p. 814.

¹⁵ See 50 Harvard Law Review 813, pp. 817-818, inclusive.

¹⁶ See 15 U. S. C. A. 79 et seq.; 49 Stat. 803.

(3) To distribute or make any public offering for sale or exchange of any security of such holding company, any subsidiary company or affiliate of such holding company, any public-utility company, or any holding company, by use of the mails or any means or instrumentality of interstate commerce, or to sell any such security having reason to believe that such security, by use of the mails or any means or instrumentality of interstate commerce, will be distributed or made the subject of a public offering;

(4) By use of the mails or any means or instrumentality of interstate commerce, to acquire or negotiate for the acquisition of any security or utility assets of any subsidiary company or affiliate of such holding company, any public-utility company, or any holding company;

(5) To engage in any business in interstate commerce; or

(6) To own, control, or hold, with power to vote, any security of any subsidiary company thereof that does any of the acts enumerated in paragraphs (1) to (5), inclusive, of this subsection.

Many, in fact, the vast majority, of holding companies, do not engage in the actual interstate transmission of gas and electric energy. Therefore, it seems quite obvious that the most far-reaching and important provisions of the act are those which close the mails and other instrumentalities of interstate commerce to unregistered holding companies.

It is by use of the instrumentalities and through the channels of interstate commerce that holding companies generally operate, i. e., direct and control the affairs of subsidiary and affiliated companies. The question then becomes one of whether a holding company is or is not engaged in interstate commerce when that holding company exercises active control over the management of subsidiaries or affiliates by means of the instrumentalities and through the channels of interstate commerce. If, in such usage, a company may be considered as being engaged in interstate commerce, it then must be determined whether or not closing the channels of interstate commerce constitutes a valid exercise of regulatory power over that industry.

In the matter of *American States Public Service Co.*¹⁷ the Public Utility Company Holding Act came up for judicial review for the first time. In that case, trustees of a debtor holding company, seeking reorganization under the Federal Bankruptcy Act, petitioned the court for instructions as to their duties under the Public Utility Holding Company Act. The court (Federal District Court for the District of Maryland) found those provisions of the act restricting the use of the mails by unregistered holding companies to be invalid under the fifth amendment to the Constitution. Therefore, the act was held unconstitutional in its entirety, the provisions thereof being considered inseparable. The trustees and reorganization managers were ordered to treat the act as void and of no effect. The decision was slightly modified and affirmed by the Circuit Court of Appeals (4th circuit).¹⁸ Certiorari was denied by the Supreme Court.¹⁹

The case of *Public Utility Investing Corporation et al. v. Utilities Power & Light Corporation* (82 Fed. 2d 21), was a suit brought by certain stockholders of the utility holding company to enjoin the officers and directors of the company from registering with the Securities and Exchange Commission. In that case the Federal District Court for the Eastern District of Virginia denied an interlocutory injunction and refused to grant a temporary restraining order pending appeal. Upon appeal the Circuit Court of Appeals for the Fourth Circuit held

¹⁷ See 12 f. Supp. 667; 10 P. U. R. (N. S.) 413.

¹⁸ *Burce v. Whitworth et al.*; see 81 Fed. 2d, 721.

¹⁹ See 297 U. S. 724.

that appellants were not entitled to restraining orders. The court found that there was no reasonable ground to apprehend irreparable injury by registering, since under a rule of the Commission registration might be accomplished with reservation of all constitutional rights.

At present the weight of authority is in favor of the constitutionality of the Holding Company Act as defined in the case of *Securities and Exchange Commission v. Electric Bond & Share Company et al.* (18 Fed. Supp. 131). The following is quoted from the opinion in that case:

The first question for determination is whether, as plaintiff contends, the registration provisions, section 4 (a) and 5 (15 U. S. C. A. 79d (a), 79 (c)), if inherently constitutional, may stand, regardless of the constitutionality of the other sections of the act, including the so-called "death sentence," section 11 (15 U. S. C. A. 79k), thus obviating any consideration of the constitutionality of such other sections, so far as the bill and answer are concerned.

The court found the provisions of the act to be separable and so held. Again, to quote from the opinion:

We come then to the question of the validity of the registration provision, that is, of sections 4 (a) and 3 (15 U. S. C. A. 79d (a) and 79e). * * *

The question is as to the power of Congress to forbid public utility holding companies to do the acts enumerated in section 4 (a) unless they first register and file the information required of registered companies by section 5.

The provisions under sections 4 (a) and 5 were found to be within the power of Congress, and not to violate the due process clause of the fifth amendment. As indicated the case was determined upon the validity of the registration provisions of the act, and their separability from those regulatory provisions might be held invalid (case affirmed 92 Fed. 2d 580 and 303 U. S. 419).

The Federal Power Act.—The Federal Power Act of August 26, 1935,²⁰ declares that the business of transmitting and selling electric energy for ultimate distribution to the consuming public is affected with a public interest, and that Federal regulation of matters pertaining to the transmission of such energy in interstate commerce is necessary in the public interest. In order to protect this public interest the Federal Power Commission is given regulatory powers over companies engaged in the transmission and sale of electric energy in interstate commerce.

In accordance with and by authority of provisions set out in the act²¹ the Commission has the duty and power, over those companies designated by the act as being within the scope of authority thereof, to fix rates and charges, ascertain the original cost of property, approve or disapprove mergers and consolidations, and to promulgate other regulatory orders.

Under the act of 1935 the Federal Power Commission has issued one formal order fixing the rate of sale of electric energy in interstate commerce. In the *Albany Lighting Co. case*²² an order to reduce rates was issued by the Commission after a complete study had been made of the cost of properties, operating expenses, etc., of the company concerned. The order was issued on July 20, 1938. On August 15, 1938, the company filed a new rate schedule in compliance with the order.

²⁰ 16 U. S. C. A. 824, et seq.

²¹ 16 U. S. C. A. 824 (a), et seq.

²² See Federal Power Commission Docket IT 3484.

In the exercise of its authority over consolidations and mergers, the Commission has been forced into litigation.²³ In the case of *Newport Electric Corporation, et al. v. Federal Power Commission* (see note 13, par. 1, below), the Commission refused to allow certain interstate electric energy utilities to effect a merger. On appeal to the Circuit Court of Appeals for the Second Circuit, that court held that it was not within its jurisdiction to review orders of the Federal Power Commission refusing leave to effect mergers. To quote from the opinion in that case:

Congress might have forbidden mergers unconditionally; * * *. And if it might forbid mergers absolutely, it might attach reasonable conditions to them, * * *. It might decide that question for itself in each case, or it might confide the question to a subordinate tribunal, like the Commission.

The case of *Pacific Power and Light Co. et al. v. Federal Power Commission* (see note 13, par. 2, below) involved the same question as the *Newport case*, that is, of authority of the circuit court of appeals to review an order refusing leave to effect merger. The court held in the *Pacific Power case* that the circuit court of appeals does have authority "to review the order as supported by the finding, on a challenge that it is not supported by substantial evidence." The *Pacific case* was affirmed by the Supreme Court of the United States on April 17, 1939.

It will be noted that in each of the two cases mentioned above the issue was in regard to the question of whether or not the Circuit Court of Appeals had authority to review the Commission's order. The cases of *Federal Power Commission v. Metropolitan Edison Co. et al.*, and *Carolina Aluminum Co. v. Federal Power Commission*,²⁴ also involve a determination of the nature of orders subject to review by the Court of Appeals. Obviously, the question is of great importance in defining the authority of the Commission.

In the *Metropolitan Edison case*, the Supreme Court held that the circuit courts of appeals do not have authority under the Federal Power Act to review orders of the Commission which are preliminary or procedural. Those orders which are held subject to review are those which have a definite character dealing with the merits of a proceeding before the Commission and resulting from a hearing upon evidence and supported by a finding appropriate to the case.

A distinction between a mere finding and a formal order was made in the *Carolina Aluminum Co. case*. The Court held that a mere finding is not subject to review.

The Federal Power Commission has made extensive and intensive studies of the original cost of various power projects. These studies are made for purposes of review in determining the reasonableness of rates at which electric energy is furnished to the consumers. As yet the Commission has made no attempt to promulgate any rate order based upon these studies.

As mentioned above (p. 18), the Commission has issued only one formal order fixing a rate. However, the Commission has investigated many cases involving rate discrimination, and has been able to successfully negotiate the abolition of such discrimination without issuance of formal orders.

²³ (1) *Newport Electric Corporation et al. v. Federal Power Commission* (97 Fed. 2d 580); (2) *Pacific Power & Light Co. et al. v. Federal Power Commission* (98 Fed. 2d 835 (affirmed Supreme Court, Apr. 17, 1939)).

²⁴ (1) *Federal Power Commission v. Metropolitan Edison Co. et al.* (304 U. S. 375); (2) *Carolina Aluminum Co. v. F. P. C.* (97 Fed. 2d 435).

The Natural Gas Act of 1938.—The Natural Gas Act of June 21, 1938,²⁵ provides for the regulation of natural gas companies in much the same manner as electric energy companies are regulated under the Federal Power Act of 1933. By authority of and in accordance with the provisions of the act, the Federal Power Commission may fix reasonable rates and charges, investigate and ascertain the actual cost of properties of any and every natural gas company, grant permits, issue certificates of convenience and necessity, order extension of facilities, require companies to carry proper depreciation accounts, and issue other orders not inconsistent with its authority under the act.

As of May 1, 1939, 30 cases have been docketed with the Commission.²⁶ These cases may be classified under 3 general headings: First, application for permits authorizing imports or exports of natural gas; second, applications for permits of convenience and necessity, authorizing construction of new or additional pipe-lines; and third, rate investigations originating in the request of some interested party or State utility commission, or upon the Federal Power Commission's own motion.

The Commission has decided and rendered opinion in one case under the Natural Gas Act—the case of *City of Cleveland v. East Ohio Gas Company*,²⁷ in which the city of Cleveland petitioned the Federal Power Commission for an investigation of the reasonableness of rate charges made by the East Ohio Co. for transporting gas to the city gate of Cleveland. The Commission ordered the East Ohio Co. to file an inventory and statement of original cost in order that the Commission might determine what was a reasonable rate. The company filed a motion for a stay of the Commission's order. In its argument in support of its motion to stay the order of the Commission the company challenged the authority of the Commission in the matter. The company contended that its transportation of gas in interstate commerce was incidental to its functions as a distribution unit; that it carried gas for its own account exclusively, and that it was not a common carrier or a public utility and therefore could not constitutionally be regulated as such by legislative fiat. It inferentially maintained that a fixing of rates is such a regulation as should be properly limited to public utilities and that as a private company the respondent in the case was not subject to such rate regulation. The Commission refused to grant the stay, holding that this was a proper case for determination of rates by the Commission.

Approximately 13 cases have been docketed with the Commission in which the regulation of rates constitutes the main problem. In virtually every one of these cases the same argument has been raised in an effort to defeat regulation by the Commission. This argument is, as indicated in the *East Ohio Gas Co. case*, that the company is not a public utility and therefore its rates are not subject to regulation by the Commission. It remains to be seen just how effective this argument will be in the attempted emasculation of Federal regulatory measures.

MAY 1, 1939.

²⁵ See 52 Stat. 821; 15 U. S. C. A. 717, et seq.

²⁶ See F. P. C. Docket G-100 to G-129, inclusive.

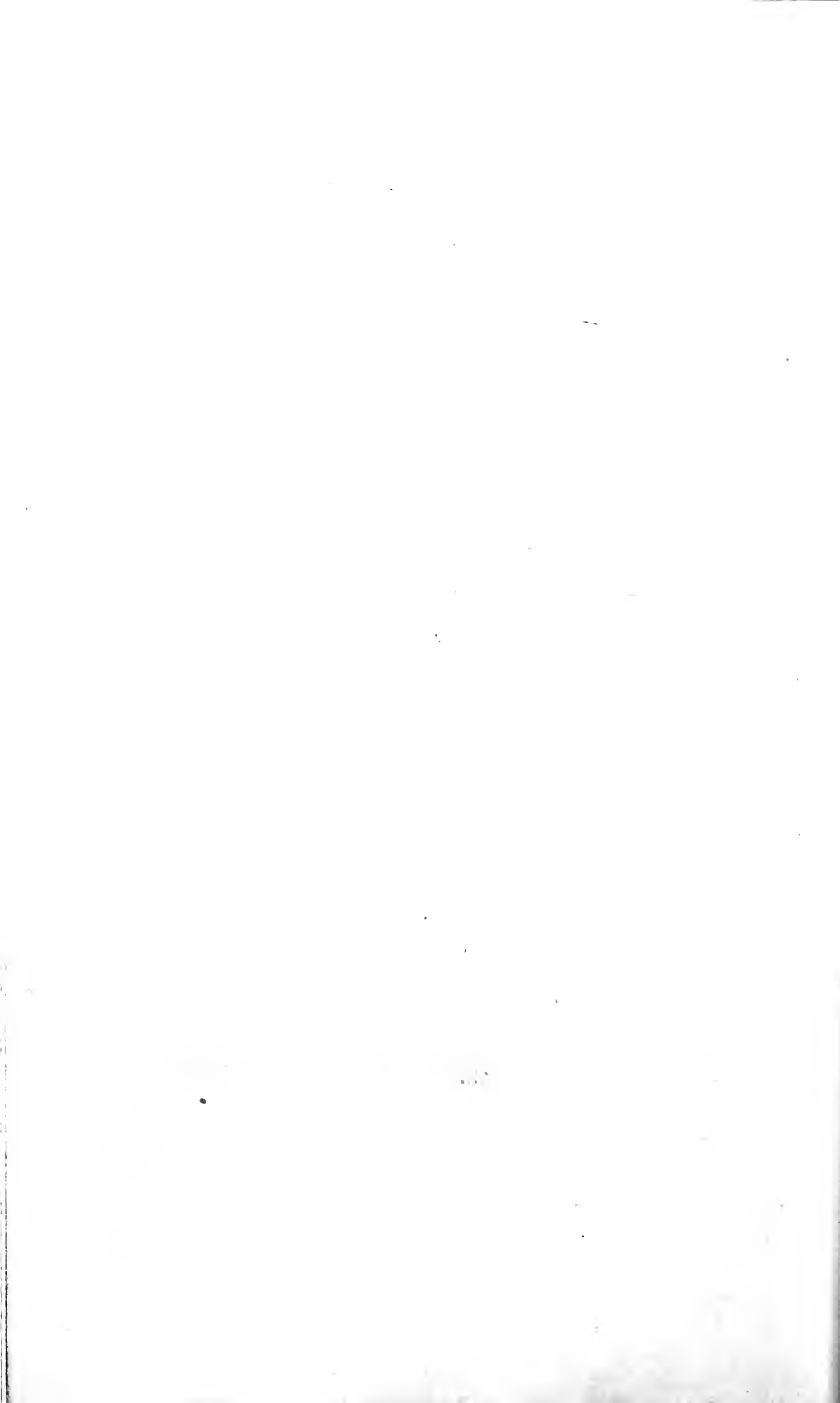
²⁷ See Federal Power Commission Docket G-115.

PART II

**REPORT ON AGRICULTURAL IMPLEMENT
AND MACHINE INQUIRY**

223

LIBRARY
BALDWIN-WALLACE COLLEGE
BEREA, OHIO



AGRICULTURAL IMPLEMENT AND MACHINE INDUSTRY

BEGINNING OF THE INDUSTRY

The agricultural implement and machine industry in the United States began somewhat more than 100 years ago with the invention of the reaper and the steel plow. The first public demonstration of a reaping machine appears to have been made by Cyrus McCormick in 1831. The earliest form of reaping machine—Bells—was in use in Scotland as early as 1827. Within a year or two following 1831, Obed Hussey invented a reaper and obtained a patent on it in the fall of 1833. This was the first patent granted for a reaper in the United States. For several years these two were the only reapers invented. In 1837 John Deere produced his steel plow, and shortly thereafter steel plows were produced in regular factories.

When the Census began to collect statistics for the industry, in 1849, there were found to be 1,333 establishments manufacturing agricultural implements. In 1859 the number rose to 1,982 and has since decreased almost without interruption. In 1933 there were only 170 active establishments in the industry.

The list of agricultural implements and machines has gradually broadened as new inventions have come on the market. There is also a large list of miscellaneous farm machines and equipment, including such items as barn fittings, poultry farm supplies, beehives, etc.

SOURCES OF INFORMATION

The facts developed in this report are based upon information collected in three major investigations. The first investigation was made by the Bureau of Corporations of the Departments of Commerce and Labor in response to a resolution of the United States Senate; the information obtained was transmitted to Congress in a report under date of March 3, 1913.

The second investigation was made by the Federal Trade Commission, in response to a Senate resolution dated May 3, 1918. The Commission's report was presented on May 4, 1920.

The third investigation was also made by the Federal Trade Commission, in response to a joint resolution of Congress, and a report was presented June 6, 1938.

In all these cases the resolutions expressed the desire of Congress to discover whether the prices of agricultural implements and machines were being artificially raised or supported through monopolistic practices in violation of the antitrust laws. The basis for this interest lay in numerous complaints from farmers' organizations, alleging that unfair prices, unjustified by the law of supply and demand, were being exacted from farmers by the industry.

In all of these inquiries a great deal of information was obtained direct from the corporate and accounting records of manufacturing companies, from the minutes and files of their trade associations and from reports furnished by the companies themselves.

CONDITIONS OF AGRICULTURE

Complaints on the part of farmers which led to the passage of the resolution directing the Federal Trade Commission to make the last inquiry into the agricultural implement and machine industry, stressed the disparity between prices which the farmer was required to pay for farm implements and machines and the prices at which he was forced to sell his products. In a letter addressed to International Harvester Co., Deere & Co., and "to other farm machinery companies," A. H. Packard, of Jericho, Vt., president of the Vermont State Farm Bureau, stated in part:

We, the undersigned farmers of Vermont, do most respectfully call to your attention the disparity which exists between farm prices and farm machinery prices. Because of this condition we have purchased machinery requirements since 1930, only when absolutely necessary. Today we find ourselves much in need of replacements, but obviously we cannot give 2 tons of milk for a mowing machine and meet our necessary obligations.

The disparity which exists today denies yourself volume of business, it denies labor an opportunity to work, and it denies the farmer the machinery which he needs.

We believe you will confer a favor on both the farmer and yourself by giving this prompt and careful attention.

Farmers in Montana also emphasized the relatively high cost of repairs to farm implements and machines.

A resolution from farmers in Idaho stated, among other things:

* * * the advance in prices is out of proportion to the price the farmer receives for his products; that prices are advancing in spite of the fact that manufacturers of farm implements are doing the largest business in their history—not excepting the high prices of the inflation period of the World War.

The depressed condition of agriculture is recognized by all. Statistics of the Department of Agriculture show that from 1900 to 1935, the proportion of full owners to the total number of farms decreased from approximately 55 percent in 1900 to approximately 45 percent in 1930, after which there was an increase in 1935 of about 1 percent, based upon acreage, the percentage of farm land in the hands of full owners decreased from approximately 51 percent in 1900 to approximately 38 percent in 1935.¹

The condition of the farmer is also shown from the statistics of income. Gross farm income decreased from \$12,243,000,000 in 1925, to a minimum of only \$5,284,000,000 in 1932. Following 1932, there was a gradual increase to \$10,003,000,000 in 1937, but this figure was lower than the total for any of the years 1924 to 1929, inclusive. The farmers' cash income, on the other hand, decreased from a maximum of \$10,479,000,000 in 1929, to less than one-half of that amount, namely \$4,328,000,000 in 1932, after which there was a gradual increase to \$8,600,000,000 in 1937.

The depressed condition of agriculture is further illustrated by the proportion of farms changing ownership through forced sales due to tax delinquency, mortgage foreclosures, bankruptcies, etc., during the period 1933 to 1936. For the whole United States, 5.41 percent of farms changed ownership in 1933, 3.91 percent in 1934, 2.83 percent in 1935, and 2.62 percent in 1936. During this 4-year period for the United States as a whole, 14.77 percent of farms changed hands due to forced sales. The proportion changing hands for the 4-year period

¹ See Federal Trade Commission Report on Agricultural Implements and Machinery Industry, pp. 71 and 72.

in New England was 7.56 percent, while in the West North Central States the proportion was 20.15 percent. For individual States, of course, the situation varied considerably. For example, in 1933, the year of the highest proportion of sales due to foreclosure, more than 1 farmer out of 9 in Mississippi and 1 out of 10 in South Dakota lost his farm through forced sale. For the 4-year period 1933 to 1936 approximately one-third of the farm owners in Mississippi (33.4) and South Dakota (34.6), over one-fifth in Nebraska (20.4) and Kansas (20.3), and almost one-fifth in North Carolina (19.95) and in North Dakota (19.4), and 1 out of 6 in Minnesota (16.9) lost their farms through forced sale. This situation existed at a time when in many parts of the country tax authorities and others were lenient in the enforcement of tax collection and in mortgage foreclosures.

ORGANIZATION OF THE INDUSTRY

Before 1900, most of the manufacturers of agricultural implements were specialized; each produced one type of implement or, at most, a few types. In 1902 the International Harvester Co. was organized, and the era of large-scale mergers began. Other combinations followed, creating what are termed "long line" companies, i. e., companies manufacturing a large number of different machines and implements.

By far the largest of these consolidations is the International Harvester Co., and the causes leading to its formation and growth may be considered fairly typical for the industry as a whole.

One of the principal motives for the formation of the International Harvester Co. appears to have been the desire to escape from the keen competition that existed among the makers of harvesting machines. Cyrus H. McCormick, president of the company, testified in 1908 that competition had been "fierce," and that the desire to get rid of what he termed "unbusinesslike methods" was one of the chief reasons for the formation of the company.

In the same proceedings, J. J. Glessner, formerly of the Warner, Bushnell & Glessner Co., testified that the competition had been a "bitter fight." W. H. Jones, formerly of the Plano Manufacturing Co., said: "The best thing to do was to get rid of the fierce competition, get rid of the waste of money in canvasses."

The method of forming the company was to buy the physical assets of the companies to be merged. The reason for this method is explained by Cyrus H. McCormick in his book *The Century of the Reaper*. He says (p. 117): "To steer clear of the antitrust clauses of the Sherman law, (George W.) Perkins' lawyers planned to buy, not the stock of the constituent companies themselves, but their physical assets only—their factories, their warehouses, their properties, and their inventories."

CONCENTRATION OF THE INDUSTRY

At the time of the formation of the International Harvester Co., the new organization controlled about 90 percent of the total production of the two principal types of harvesting machines, grain binders, and mowers. Since that time, these machines have declined in relative importance, with the growth of other types of farm ma-

chinery—tractors, harvester-threshers, and corn binders, and potato, beet, and other harvesting machines.

With the expansion of the industry into new fields, the other large companies have obtained a proportionately larger share of the total business. For example, in 1936 the Allis Chalmers Co. took the lion's share of the combine business with a new 5-foot combine at about half the price of the International Harvester Co.'s 10-foot machine. The International Harvester Co. is still, however, far in advance of its nearest rival, Deere & Co. The proportion of the total sales in the United States, by the 8 leading companies, in the census years 1921, 1929, 1935, 1936, and 1937, is shown in table 2.

The ten largest companies do approximately 89 percent of the total business in the United States. In 15 representative implements the business is concentrated to the extent of 75 to 100 percent in the hands of 4 to 8 companies, offering comparatively easy opportunities for price leadership and relaxation of competition. See table 3.

ABSENCE OF INTERLOCKING DIRECTORS OR COMMON STOCKHOLDERS

Internal control of the largest companies is somewhat concentrated, but there is no evidence of interlocking control between these companies. In International Harvester Co., 9 stockholders are reported to own 37.9 percent of the stock. In Deere & Co., 14 stockholders hold 49.1 percent of the stock. The ownership of the other leading companies is more scattered. Many of the small companies are closely held.

Of the 183 companies reporting in 1938, only 1 case was found where a single individual is director in two companies. One case was found where a single individual owned more than 1 percent of the stock of more than one company, but his holdings did not constitute a controlling interest.

MANUFACTURING PLANTS AND LABOR CONDITIONS

The location of factories in the industry is generally decentralized, on account of transportation costs for materials and finished products.

Factory equipment varies widely in age and type. That for manufacturing the simpler kinds of products, in which a high degree of accuracy is not required, is generally old; the high-grade modern machines are made as a rule by new equipment, much of it automatic.

Labor includes a minority of skilled mechanics and a large number of unskilled workmen. Few women are employed in manufacturing. The work is seasonal, coming chiefly in winter and spring, the rapid changes in style rendering it impossible to stock the finished product a year in advance. Employment at the peak is about double that in the slack season.

Until recently, there have been few labor unions in the industry other than "company unions." The work week prior to the N. R. A. was 50 to 54 hours but since 1933, has been generally 40 hours. The reduction in hours has had the effect of reducing output per worker and average worker income. Wages in 1937 ranged from \$16 to \$60 per week, with an average of \$24 to \$28. Much of the skilled labor is on piece rates. Wages are generally lower in the smaller communities.

WHOLESALE DISTRIBUTION SYSTEM

One of the most difficult problems facing all manufacturers of farm implements is that of distributing their product. This problem increases with the growing complexity and diversity of farm equipment.

A century ago the village blacksmith, or even the farmer himself, could make almost any of the farm tools that were commonly used. Today, the more important farm machines require an expensive plant for their production. They must be made in large numbers and be widely distributed. Because of their high unit cost, only a comparatively few of some types can be sold in a given locality. These technical peculiarities of the business have largely influenced the form of the wholesale and retail distribution system for farm implements.

The large companies have developed their own branch houses which serve as wholesalers and to some extent as assembly shops. The International Harvester Co., in 1937, had branch houses, transfer houses, and motortruck sales and service stations in 157 cities in the United States, as well as 108 company owned and retail stores. Deere & Co., in 1936, had 54 branches, 41 of which were in this country, the others in Canada. It had also more than 100 retail stores. In 1937 J. I. Case Co. had 42 branches in the United States; Oliver Farm Equipment Co. had 40, operating through a subsidiary.

The territory tributary to each branch is divided into blocks of counties in charge of "blockmen." The blockman places the company's line with local dealers, and employs salesmen to work with local dealers in calling on the farmers.

Most of the short-line companies lack the volume of business necessary to enable them to establish branch houses on an extensive scale. They are, therefore, forced to sell through independent jobbers or wholesalers, through the agency of some long-line company, by catalog and traveling salesmen direct to the retailers, or through farm bureaus and farm cooperatives.

The growth of long-line branch houses has reduced the number of independent wholesalers, forcing the small manufacturers to seek other methods of distribution. To the extent that a small company, manufacturing a specialty, sells its product through one of the long-line companies, it may be considered as merged so far as the consuming public is concerned. In some cases, full merger with the large company follows a sales arrangement of this kind.

The wholesale situation is such that a retail dealer finds it difficult to obtain a full line of farm equipment except through the long-line companies. The additional trouble and uncertainty involved in attempting to collect a stock from small manufacturers who are inadequately represented in his area, creates a marketing advantage for the larger companies.

The method of sales financing also tends to favor the large companies. In selling one of the more expensive machines, a dealer will often accept an old machine or certain farm produce in trade, a small amount of cash, and several notes with varying maturities for the balance. The long-line companies rediscount the dealer's notes, a service that smaller companies with limited financial resources are often unable to perform.

Thus a dealer who handles products of short-line companies is forced to supply a larger quantity of working capital.

RETAIL SALES SYSTEM

Although certain large manufacturers have recently established their own retail outlets to a certain extent, both the long- and short-line companies still depend chiefly on independent retailers. There is real competition among manufacturers for desirable dealer outlets, in which, as previously noted, the long-line companies have definite advantages.

A dealer must handle a complete line of implements in order to have products that will sell throughout the farming season. There appears to have been at times a tendency on the part of branch managers of certain manufacturers to resort to what is called "full line forcing." Sometimes, it appears, dealers have been given to understand that in order to obtain goods from a long-line company they must take the full line of products adapted to their market, and exclude any competing items from short-line manufacturers. Some dealers have kept a stock of competing goods in a separate storehouse, "bootlegging" them to their customers so as to escape the vigilance of the large concern from which they obtained their principal stock.

Since the publication of the Commission's 1938 report, calling attention to the practice of full line forcing, the International Harvester Co. has issued letters to its sales force and to dealers, stating that all dealers are free to carry the products of other manufacturers. Full line forcing has never been a universal practice, and may be held at a minimum by keeping the situation under public observation.

In addition to regular dealers, who maintain well stocked stores, often combining a trade, in hardware, feed, seed, coal or similar products, there are various other types of retail outlets.

The "curbstone" or farmer dealer, who sells a few machines without a regular establishment, is regarded with disfavor by the regular dealers, but is often used even by the larger companies as a means of introducing a line of products into a new area where no regular dealer can be obtained. The curbstone dealer represents an element of freedom in the industry, preventing the establishment of a fully effective retail monopoly by the established dealers.

Cooperative stores vary in policy and methods. Some of them offer full services to purchasers of farm machines, charge list prices, and return any profits in the form of consumer dividends. Cooperatives of this kind are apt to be regarded by regular dealers as legitimate competitors. Other cooperatives sell at cut prices and offer little or no service in repairs and replacement of parts. They are regarded with disfavor by the trade. Cooperative wholesalers are reported to have a considerable amount of trouble in obtaining supplies from manufacturers, especially where they compete with branch houses owned by the producers.

The mail order houses sell some kinds of farm implements at cut prices, but have, until recently, been able to offer only limited local services. The spread of local retail branches of mail order houses is correcting this disadvantage, and these houses are extending their trade.

RETAIL ASSOCIATIONS

There are two federations of retail dealers. The National Federation of Implement Dealers' Associations is the larger of the two, and in 1937, included in its membership about 4,400 dealers or 20 percent of the total number in the country. The Eastern Federation had only 250 members. These federations serve as information clearing houses for numerous State and district associations.

The local associations, or clubs, serve their members along a number of lines—exchange of credit information, elimination of overlapping canvassing (i. e., of competition at the border of trade areas), joint purchases to obtain quantity discounts, exchange of surplus stock, cooperation in collections, adjustment of disputes, study of accounting costs, cooperation in local demonstrations, and mutual information to defeat the buyer who makes false assertions about prices and terms quoted to him.

To distinguish among these services those that lead to legitimate economies and those that serve to avoid real competition, it would be necessary to have full knowledge of the details of each activity. It appears that the effect of the clubs is to increase the average margin of profit to the dealers. There is evidence of a desire to prevent the entrance of new competitors but not much evidence that any efforts in that direction are widely successful.

FARM EQUIPMENT INSTITUTE

The manufacturers of farm implements and machines maintain a trade association known as the Farm Equipment Institute. All the large manufacturers and most of the lesser ones belong to this organization. A careful examination was made of the correspondence, minutes, and records of the institute. Its chief function appears to be that of keeping in touch with educational and engineering organizations interested in farm problems, and promoting good relations with consumers and the public generally. The institute has also devoted some attention to standardization, which appears to be in part a technical problem of interchangeable parts, but in this case more nearly a problem of obtaining such uniformity of style as to facilitate uniform price policies.

The National Federation of Implement Dealers' Associations holds its annual convention at the same time and place with that of the institute, and one session is held by the two organizations in common. The records do not show any action at these meetings beyond an expression of goodwill by the industry to its dealers.

According to the secretary of the institute, its activities are conducted under advice of counsel to avoid giving occasion for criticism.

One of the chief departments of the institute in recent years has been that devoted to "research," or public relations. For several years the institute has criticized the Government price index numbers for agricultural machines, asserting that improvements in quality have been such as to outweigh changes in price. In 1932, when farm incomes were at a low point and farm machine prices, therefore, under pressure of public disapproval, the institute arranged for a study of "Changes in Quality Values of Farm Machines between 1910-14 and 1932."

The study was made by a committee of six, consisting of three professors of agricultural engineering in prominent State agricultural colleges, and three engineers employed by large farm machinery companies. It appears that the original plan was to have the report published by the industry and signed by all six members of the committee. As the report finally came out, however, it was signed only by the three professors, and was published by the American Society of Agricultural Engineers rather than by the institute.

A statement submitted on behalf of the institute before the subcommittee of the House of Representatives, in 1936, referred to this report as having been prepared by a committee of three appointed by the American Society of Agricultural Engineers. This subcommittee was, at that time, considering the resolution directing the Federal Trade Commission to make the 1938 inquiry. The statement also pointed out that the substance of the report had been accepted and used in a bulletin issued by the United States Bureau of Agricultural Engineering on December 2, 1935.

It appears that the major part of the work on this report was done by the three engineers representing the manufacturers, that the report was published in a form calculated to give the public an impression of disinterested scientific research, that the report did deceive the Bureau of Agricultural Engineering, and that a misleading statement as to its origin was made to a subcommittee of the Congress.

The Commission did not attempt to speak with expert authority on the efficiency of farm machines, but it notes that the statement put out by the industry on this subject was marred by deception in the manner of its presentation. It is common knowledge that farm machines have been greatly improved in recent years. This fact is generally appreciated by farmers. On the other hand, equally great improvements have been made in other commodities, as illustrated by the automobile, radio, and electric refrigerator. In these latter commodities no rise in prices corresponding to improved quality has been noted. The presumption is still against an industry that shows a tendency to rising prices, even with higher quality of product.

PRICES IN THE INDUSTRY

According to price statistics of the Bureau of Agricultural Economics, the prices of farm implements and machines as a class rose 58.8 percent from 1913 to 1929, while farm prices rose only 44.5 percent.

During the depression years from 1929 to 1933, the reduction in farm equipment prices was slight; few articles were cut more than 10 percent, many of these being specialties produced by the smaller companies. Most of the reductions ranged from 8 down to less than 1 percent and a few items increased in price.

Farm income, meanwhile, fell off seriously. Average farm prices for eggs fell 52 percent, cattle 61 percent, wheat 62 percent, lambs and hogs 63 percent, cotton 67 percent, and corn 68 percent from 1929 to the end of 1932.

It appears clear that if the law of supply and demand had been freely operating, the prices of farm equipment might have been expected to fall more than they did in these years.

With the partial recovery of farm prices and incomes from 1933 on, however, farm machinery prices responded by rising at such a rate that by 1935 the majority were already above the 1929 level. The rise then continued through 1937. There has been a reduction in prices announced for 1939, in response to the renewed downward trend of farm incomes.

The evidence at hand indicates that the control of prices is effected through price leadership by the International Harvester Co. and Deere & Co. The other companies are accustomed to hold off their announcement of prices in the fall until these companies have published their lists for the following year. Smaller companies are aware that they cannot sell at higher prices than the leaders, and they appear to feel that any attempt to get business by quoting lower prices would not be good policy.

The Commission noted that where such a small number of concerns can control so large a fraction of the business, the risks of attempting to break in with competitive price reductions are particularly great. To this disadvantage must be added the fact that the distribution system tends to lay unequal burdens on the smaller concerns, reducing their profits to such a degree that their ability to offer lower prices is seriously impaired.

Price lists are published in the form of recommended retail prices, which are subject to discount to dealers. The dealers are not required to sell at the list price, though one of the aims of dealer clubs is undoubtedly to discourage price cutting.

Price cutting in distribution occurs in several ways. Certain companies offer special discounts for quantity sales, a fact which tempts the dealers to stretch into a higher discount bracket by offering special inducements to buyers. Prices are often cut indirectly by way of allowances on trade-ins. Curbstone dealers, having little to offer by way of services, often sell at a lower margin than regular dealers.

Price control, therefore, appears to be less in evidence in the retail business, carried on by numerous independent dealers, than in the wholesale distribution by the manufacturers. The Commission notes, however, that retail price cutting is of less value to the public than is true competition among producers.

RECENT PRICE CHANGES

The leading manufacturers of farm machinery have reduced prices covering their dealers' 1939 contracts. For the International Harvester Co., these price reductions were made effective on two different dates, part of them October 4, 1938, and the remainder November 1, 1938. Price reductions cover walking plows, gang plows, harrows, cultivators, cream separators, manure spreaders, mowers, grain binders, tractor plows, 4-row tractor corn planters, 2-row Farmall tractor cultivators, feed grinders, hay presses, ensilage cutters, steel- and pneumatic-tired tractors, harvester-threshers or combines, and certain tractors. These price reductions ranged from a minimum of 2.6 percent for a No. 2 12-B ensilage cutter, which was reduced from \$285 to \$277.50, or 2.6 percent, to a maximum of 18.2 percent for a No. 60 harvester-thresher, which was reduced in price from \$680 to \$556. Among the smaller

price reductions were W-14 steel-wheeled tractors from \$604 to \$584, or 3.3 percent, and 6-foot grain binders with 3-horse hitch from \$198.50 to \$192.50, or 3 percent, and a No. 51 harvester-thresher, steel wheels, reduced from \$2,120 to \$2,040, or 3.8 percent. Among the larger price reductions were T-35 standard tread tractors reduced from \$1,872 to \$1,612, or 13.9 percent, and a No. 3 cream separator reduced from \$86.25 to \$74.63, or 13.5 percent.

There was one price reduction made about the middle of 1938, namely, on June 28, when price reductions were made on 10 types of tractors, ranging in amount from \$75 to \$245.

Other manufacturers made similar price reductions.

It is interesting to note that price increases were made in 1937 for implements to be sold in 1938, after the industry had experienced one of its most prosperous business years; while after the much less prosperous year 1938, prices are reduced. In its report submitted to Congress in June 1938, the Commission criticized the high prices of farm implements. It appears that the leading company in the industry is anxious to correct practices criticized by the Commission.

COSTS OF TYPICAL FARM IMPLEMENTS AND MACHINES

In the Commission's inquiry into the agricultural implement and machinery industry, the principal farm-machinery manufacturers were called upon to submit detailed manufacturing and distribution costs for 34 typical farm implements and machines for the years 1929, 1932, 1933, 1935, and 1936. These costs reports were carefully examined by the Commission's accountants, and certain revisions were made in the costs as submitted. It was found that the costs of the same size and type of implement varied considerably for different manufacturers. Some part of this difference in cost was caused by the method of distribution of overhead expenses. For example, the larger farm implements and machinery manufacturers that maintained branch houses and performed the functions usually performed by jobbers and wholesalers, included in their costs the expenses of operating the branches. The smaller manufacturers, on the other hand, that sell largely through wholesalers and jobbers, did not have this type of expense.

Although a farm implement may perform the same function, manufacturers of tractors have found by experience that they must make their machines stronger than would be necessary if they were horse-drawn. It was found that complete costs of a particular implement or machine varied greatly depending upon the quantity manufactured. This is due to the fact that there are a smaller number of units over which to spread general manufacturing costs and the costs of administration. For a 5-foot-cut mower the range in costs from high to low were as follows, for the different years:

	High	Low
1929	\$77.36	\$48.85
1932	149.93	56.24
1933	147.66	50.01
1935	70.89	49.38
1936	87.60	45.38

The years 1932 and 1933 were years in which most manufacturers had a low output.

For a two- to three-plow steel wheel tractor, the range in costs from high to low were as follows:

	High	Low
1929	\$852.21	\$518.09
1932	1,442.81	719.75
1933	1,324.41	1,248.92
1935	644.70	523.06
1936	731.42	470.52

As already stated, the wide variations in costs from year to year are largely caused by the higher cost per machine of indirect manufacturing, selling, collection, administrative, and general office expenses. This is well illustrated by a summary of average revised estimated costs of 5-foot cut mowers.

	Direct material and labor cost	Indirect manufacturing expenses	Selling, collection, administrative, and general office expenses	Total
1929	\$36.07	\$11.60	\$13.29	\$60.96
1932	38.24	21.34	55.51	115.09
1933	33.66	26.32	30.65	90.63
1935	36.17	11.54	10.55	58.26
1936	37.99	10.51	11.40	59.90

During the 5 years shown, the range in the direct material and labor combined was from a low of \$33.66 in 1933 to a high of \$38.24 in 1932. Indirect manufacturing expenses, that is, the overhead expenses of the manufacturing plant, ranged from a low of \$10.51 per mower in 1936 to a high of \$26.32 in 1933, and the range in the selling, collection, administrative, and general office expense per mower was from a low of \$10.55 in 1935 to a high of \$55.51 in 1932, resulting in a range in the total cost of a minimum of \$58.26 in 1935 to a maximum of \$115.09 in 1932.

Wages have generally been higher in 1937 and 1938. From the above table it will be noted that the difference between the highest and lowest material and labor costs per 5-foot mower was only \$4.58, while the difference between the high and low for the indirect manufacturing expense was \$15.81, and for selling, administrative, and general office expense, \$44.96. For the total cost of producing a 5-foot machine, the difference between the high and the low year was \$57.83. In other words, the increased costs due to small volume of output were almost as great as the total cost of producing a 5-foot mower in the years of larger volume of sales. Similar comparisons could be made for many other farm implements.

It appears that overhead costs are not primarily determined by excessive salaries to the principal officers, but are an unavoidable characteristic of the business. Executive compensation varies with production, while overhead in general varies in the opposite sense.

The conclusion to be drawn from the cost relations in agricultural machinery is that the industry cannot hope to attain low costs in depression, and that if the industry should attempt to make prices to cover costs on a falling market the result would be a cumulative rise in price and cost leading to complete paralysis. This relation is common to industries with high overhead costs for plant and distribution system.

According to the common theory of capitalist business, the law of supply and demand should act to keep prices down in an industry of this kind, where costs fall rapidly with rising volume of sales. The free market offers no guaranty of profit in time of depression; had farm machinery been offered at low prices in 1932, the volume of sales might not have sufficed to bring costs down to the level of receipts. Although prices were kept at a high level, relative to the income of consumers, they failed to cover costs, because of the drastic reduction in sales volume. The Commission takes the position that whether the market in a particular year will yield losses or profits, it is in either case more desirable to sell at low prices, keeping volume high and costs at a minimum.

Unless it can be generally recognized that industries with high fixed overhead must operate on high volume, it will follow that such industries may properly attempt to meet rising costs by restricting production. If such a method of operation is admitted as proper, experience shows that the effect is general paralysis of business, excessive unemployment, and mounting burdens on the taxpayers.

PROFITS IN THE INDUSTRY

The average profit of the majority of producers of farm implements and machinery, from 1927 to 1936, was low. Deere & Co. led the list with an average of 11.91 percent, followed by International Harvester Co. with 10.61 percent. J. I. Case Co. made 5.43 percent and B. F. Avery 1.11 percent. Three other large companies lost 1.39 to 5.58 percent.

Among the smaller companies, the 10-year average was highest for those with a capital between \$1,000,000 and \$3,000,000. Profit for this group averaged 3.49 percent. Smaller companies had group averages running down to 0.33 percent; companies over \$3,000,000 not in the Big Eight had an average loss of 2.02 percent.

All reporting companies taken together showed average profits of 7.58 percent over the 10 years. Losses were sustained of 0.02 percent in 1931, 4.52 percent in 1932, and 1.8 percent in 1933. The profit was 16.46 percent in 1929, and rose again to 14.20 percent in 1936.

These figures represent total operations, including some business not classified as farm implements and machinery. The latter items, so far as they could be segregated, followed the general trend of the companies' business as a whole, but showed a slightly higher profit.

THE FARMER'S DOLLAR

A study was made of the proportion of the cost to the farmer for certain implements and machines for sales taxes, freight, retail distributor's margins, manufacturer's realization, and manufacturer's

net profit. The implements and machines for which certain cost data were obtained were those farm implements and machines for which the Commission's examiners obtained costs and expense data from the records of manufacturers, and the manufacturer's factory cost, selling and general and administrative expense, and profit data were obtained direct from the records of the company. Samples of sales of the various implements and machines were obtained, as far as was practicable, in different sections of the United States, so that these samples would constitute a fair geographic representation of farmers in different parts of the country. For example, samples were obtained from Columbus, Ohio; Peoria and Moline, Ill.; Memphis, Tenn.; Kansas City, Mo.; Minneapolis, Minn.; California, Oregon, and Washington.

In 1937, for each dollar spent by the farmer for a row-crop tractor with steel wheels, in the Columbus, Ohio, territory, the results were as follows:

	<i>Cents</i>
Material cost.....	29.3
Direct labor.....	7.4
Factory overhead.....	11.0
Total factory cash.....	47.7
Selling, general and administrative expenses.....	9.8
Manufacturer's profit if settled on a cost basis.....	16.5
Cash settlement discount available to dealer.....	4.1
Total manufacturer's profit on time settlement basis.....	20.6
Manufacturer's realization.....	78.1
Retail dealer's margin.....	20.3
Freight.....	1.6
Total.....	100.0

GENERAL CONCLUSIONS

The Commission's general conclusions were as follows:

The unsatisfactory situation with respect to the farm machinery and implement industry, from the public and consumer standpoint, is due primarily to the inadequate results achieved under the Harvester Sherman Act Dissolution case, and to the inadequacy of section 7 of the Clayton Act. The facts in the Harvester case disclosed that the Harvester combination (formerly competing companies) owned the major portion of the industry; that because of such dominant position the International Harvester combination, from and after its organization in 1902, was able to establish the prices for the harvester-machinery industry; and that after subsequent acquisitions by International and Deere & Co. of Manufacturers of other implements, necessary to complete their full lines of machinery and implements, these two companies were enabled to establish and actually have established the price levels for the great majority of agricultural implements and machinery.

The fact that the International Harvester Co. does not control as high a percentage of the production of certain farm implements and machines as it did 20 years ago is not, in the opinion of the Commission, proof of the existence of free and open competition in this industry. Any decline in the percentage of production of farm implements and

machines has not had, in the opinion of the Commission, any appreciable weakening effect on its ability to continue to dictate the price structure of the farm-machinery industry.

The large advance in the great majority of farm-machinery prices as compared with the prices of other manufactured products since the origin of the International Harvester Co.; the profits of this company; the high degree of rigidity in farm-machinery prices during the depression; the swift rebound of farm-machinery prices after the 3 severest years of the depression, 1931, 1932, and 1933, to levels exceeding those of 1929, one of the years of highest prices in the history of this industry, and in industry generally; the ability of the International Harvester Co. to make more net profits in 1937 (a year of business recovery) than it did in 1929 (the peak year for national income and general business prosperity) despite the fact that cash income of the farmer in 1937 was approximately 18 percent less than in 1929; the raising of this company's farm-machinery prices in 1938 over those of 1937 in the face of the company's remarkable earnings in this latter year; the continued dominant position of the International Harvester Co. since 1902 in the farm-machinery industry; the exchange of price lists among farm-machinery manufacturers; evidence of dealer coercion; and the typical monopolistic behavior of the International Harvester Co.'s business operations during the depression when there was only a relatively slight percentage of decline in its farm-machinery prices but a sharp percentage of decline in its volume of production and employment as contrasted with the behavior of industries known to be competitive where the percentage in the decline of prices was greatest and the declines in the volume of production and employment were less in the opinion of the Commission, indicate the existence of a serious monopolistic condition in the farm machinery industry.

The only instances in which the prices of farm-machinery have been materially reduced are those in which competition has been operative—for example, harvesting machines prior to the formation of International Harvester Co. in 1902, and tractors during the time that automobile manufacturers engaged in their production.

Most of the high degree of concentration which is found in the farm machinery industry has been the result of the acquisition of the capital stock or the assets of competitors prior to enactment of the Clayton Act and thereafter in the purchase of assets of competitors rather than in the purchase of their capital stock.

TABLE 1.—*Number of manufacturers of certain farm implements and machines in 1926, 1936, and 1937*¹

Implement or machine	Number of manufacturers		Number of establishments, 1926
	1937	1936	
Plows, moldboard:			
Horse-drawn:			
Walking, 1-horse.....	41	44	42
Walking, 2-horse and larger.....	41	39	—
Sulky, 1-bottom.....	14	15	24
Gang, 2-bottom and larger.....	11	11	—
Tractor-drawn:			
1-bottom.....	9	10	8
2-bottom.....	14	14	15
3-bottom.....	10	11	12
4-bottom.....	10	10	—
5-bottom and larger.....	6	6	—
Plows, disk:			
Horse-drawn:			
Single.....	8	6	9
2-disk and larger.....	6	9	—
Tractor-drawn:			
2-disk.....	8	8	10
3-disk.....	6	10	7
4-disk.....	6	8	9
Transplanters.....	7	6	4
Listers with planting attachments:			
1-row, horse-drawn.....	4	6	—
2-row, horse- or tractor-drawn.....	10	11	—
3-, 4-, 5-row, horse- or tractor-drawn.....	10	8	—
Beet drills, horse- or tractor-drawn.....	6	6	4
Grain drills, horse- or tractor-drawn.....	16	18	—
Broadcast seeders:			
Wheel, horse-drawn.....	6	8	11
End-gate.....	5	6	4
Fertilizer distributors, horse- or tractor-drawn.....	32	30	32
Lime spreaders (sowers):			
Wheel type.....	15	12	—
End-gate type.....	8	4	—
Manure spreaders.....	13	17	20
Cultivators:			
Horse-drawn:			
1-horse (all types).....	31	27	31
1-row walking, 2-horse.....	19	18	27
1-row riding, 2-horse.....	24	22	40
2-row, riding.....	19	20	32
Tractor-drawn or mounted:			
2-row.....	14	13	—
3-, 4-row.....	—	10	—
5-disk.....	9	10	—
6-disk and larger.....	—	7	—
Listers, horse- or tractor-drawn:			
1-row.....	—	13	23
2-, 3-, 4-, and 5-row.....	—	8	—
Harrows, horse- or tractor-drawn:			
Spike-tooth sections.....	38	40	46
Spring-tooth sections.....	26	25	22
Disk.....	34	37	—
Smooth land rollers.....	6	8	9
Soil pulverizers and packers.....	21	23	22
Stalk cutters.....	17	18	23
Corn planters:			
1-horse, single row.....	17	16	19
2-row, horse or tractor.....	15	16	18
3-, 4-row tractor-drawn.....	7	7	—
Combination corn and cotton planters:			
1-horse, single row.....	16	17	—
2-horse, single row.....	10	11	—
2-row.....	12	9	11
3- and 4-row.....	6	6	—
Potato planters.....	13	11	20
Beet cultivators, horse or tractor.....	6	9	10
Field cultivators.....	13	15	—
Rotary hoes, horse- or tractor-drawn.....	9	8	—
Grain binders, horse- or tractor-drawn.....	6	6	6
Rice binders, horse- or tractor-drawn.....	4	3	—
Grain headers.....	—	4	4

¹ Compiled from reports of the Bureau of the Census, U. S. Department of Commerce, Manufacture and Sale of Farm Equipment, 1926 and 1936.² 1 and 2 disk.³ 8 disk and larger.⁴ Horse- or tractor-drawn.

TABLE 1.—*Number of manufacturers of certain farm implements and machines in 1926, 1936, and 1937—Continued*

Implement or machine	Number of manu- facturers		Number of establish- ments, 1926
	1937	1936	
Combines (harvester-threshers):			
Width of cut less than 10 feet	4 9	5	-----
Width of cut 10 feet and larger	9	10	-----
Corn binders	4	4	5
Corn pickers	11	8	-----
Potato diggers:			
Walking-plow type	11	11	-----
Other, horse- or tractor-drawn	13	13	-----
Pea and bean harvesters	12	12	17
Beet lifters	4 17	7	6
Mowers, horse- or tractor-drawn	13	13	11
Rakes:			
Sulky, dump	14	15	15
Side-delivery (including side delivery and tedders)	11	12	-----
Sweep	9	10	12
Hay loaders	10	11	12
Stackers	7	8	10
Grain threshers, including rice and alfalfa:			
Width of cylinder under 28 inches	20	22	-----
Width of cylinder 28 inches and over	17	18	-----
Pea and bean threshers	8	8	11
Peanut pickers	6	6	4
Ensilage cutters (silo fillers), all types	21	21	26
Feed cutters	10	11	19
Corn shellers, hand	18	22	20
Corn shellers, power:			
Spring (2-, 4-, 6-, and 8-hole)	12	9	16
Cylinder	14	10	8
Corn huskers and shredders	11	9	11
Hay presses:			
Horse	8	8	10
Engine or belt power	17	15	17
Feed grinders and crushers:			
Hand	14	14	12
Power, burr type	22	21	-----
Hammer and roughage mills	34	31	-----
Grain cleaners and graders (for small grain)	9	10	19
Potato sorters and graders	9	10	6
Cane mills (farm size)	7	7	6
Tractors:			
Wheel type:			
Under 25-belt horsepower	4 9	11	-----
25- to 29-belt horsepower	(7)	6	9
30- and over belt horsepower	11	10	-----
All purpose	(6)	9	-----
Track laying			
Under 30 horsepower	6 {	5	-----
30 to 49 horsepower		6	-----
50 horsepower and over		6	-----
Engines:			
Under 5 horsepower	34	21	35
5 or more but under 10 horsepower	20	18	32
10 or more but under 100 horsepower	20	21	-----
Wagons, farm	36	37	-----
Trucks, farm, not motortrucks	21	23	29
Trailers	12	14	-----
Milking machines (complete units)	10	11	9
Cream separators:			
Capacity 350 pounds or less per hour	8	8	-----
Capacity 351 to 500 pounds per hour	8	8	-----
Capacity 501 or more pounds per hour	7	9	-----
Windmills	22	15	26
Windmill towers	20	23	25

⁴ Horse- or tractor-drawn.⁵ Including 10 feet.⁶ With rubber tires, 8.⁷ Steel tires, 5; rubber tires, 7.⁸ Under 30 horsepower steel tires, 10; rubber tires; 11; 30 horsepower and over, steel, tires 3; rubber tires, 3.

TABLE 2.—Percentages of the total number of representative farm implements and machines sold for use in the United States for each of the years 1921, 1929, 1935, 1936, and percentages of the numbers and values in 1937, for specified companies

Implement or machine	1921	1929	1935	1936	1937	
					Number	Value
Grain and rice binders:						
International Harvester Co.....	73.2	67.9	67.2	56.5	68.6	61.5
Deere & Co.....	13.5	25.9	24.7	31.7	20.6	28.5
J. I. Case Co.....			3.6	4.6	5.0	5.0
The Massey-Harris Co.....	3.8	2.5	1.6	2.2	1.1	1.2
B. F. Avery & Sons Co.....	.8	.5	.3	.4	.3	.3
Total.....	91.3	96.6	97.4	95.4	95.6	96.5
Combines (all widths):						
International Harvester Co.....	85.1	31.8	32.4	11.8	19.1	18.4
Deere & Co.....		6.8	15.6	15.8	14.6	19.4
J. I. Case Co.....		12.5	9.3	3.8	4.1	4.7
Oliver Farm Equipment Co.....		10.0	7.3	4.9	6.5	5.2
Allis-Chalmers Manufacturing Co.....			14.1	45.6	38.6	27.3
Minneapolis-Moline Power Implement Co.....		3.3	17.5	9.1	8.4	12.0
The Massey-Harris Co.....	.2	3.8	2.2	1.0		
Total.....	85.3	68.2	98.4	92.0	91.3	87.0
Grain threshers (all sizes):						
International Harvester Co.....	4.6	26.7	15.8	20.4	30.5	25.7
Deere & Co.....			4.8	10.0	9.6	12.5
J. I. Case Co.....	24.3	14.7	14.8	19.7	16.6	8.5
Oliver Farm Equipment Co.....		14.3	15.8	14.8	4.1	3.7
Allis-Chalmers Manufacturing Co.....			9.3	4.7	5.4	5.9
Minneapolis-Moline Power Implement Co.....		8.4	6.5	3.2	4.1	5.7
Total.....	28.9	64.1	67.0	72.8	70.3	62.0
Mowers, horse or tractor:						
International Harvester Co.....	62.4	64.6	59.6	53.4	54.2	47.5
Deere & Co.....	14.3	20.7	20.9	21.8	21.1	26.3
J. I. Case Co.....			5.5	5.5	5.7	4.7
Oliver Farm Equipment Co.....			(1)	6.4	5.9	7.5
Allis-Chalmers Manufacturing Co.....				.5	1.3	2.3
Minneapolis-Moline Power Implement Co.....		1.3	.5	.2	.6	1.0
The Massey-Harris Co.....	2.8	3.2	1.8	2.1	1.8	2.2
B. F. Avery & Sons Co.....	1.5	2.6	1.8	1.8	2.0	2.6
Total.....	81.0	92.4	90.0	91.7	92.6	94.1
Rakes, sulky, dump:						
International Harvester Co.....	51.2	56.2	52.4	50.6	50.8	43.7
Deere & Co.....	14.7	20.8	20.8	19.1	19.9	25.7
J. I. Case Co.....			6.3	6.3	6.1	6.9
Oliver Farm Equipment Co.....			(1)	6.1	6.1	7.2
Minneapolis-Moline Power Implement Co.....		2.0	1.4	1.2	1.1	1.3
The Massey-Harris Co.....	2.9	3.5	2.2	2.4	2.0	2.5
B. F. Avery & Sons Co.....	3.3	3.7	2.8	2.8	3.1	3.8
Total.....	72.1	86.2	85.9	88.5	89.1	91.1
Rakes, side delivery, combined rakes and tedders:						
International Harvester Co.....	53.3	62.9	40.8	36.9	39.0	30.0
Deere & Co.....	25.7	22.8	26.2	27.4	26.3	32.3
J. I. Case Co.....			6.7	6.7	7.9	8.0
Oliver Farm Equipment Co.....			(1)	3.9	3.1	3.7
Minneapolis-Moline Power Implement Co.....		1.8	.7	.8	.4	.4
The Massey-Harris Co.....	8.0	5.2	1.7	1.9	1.9	2.3
B. F. Avery & Sons Co.....	1.5	.6	.5	.6	.6	.7
Total.....	88.5	93.3	76.6	78.2	79.2	77.4
Hay loaders, all types:						
International Harvester Co.....	43.9	53.1	54.3	38.6		
Deere & Co.....	26.3	22.7	28.4	25.4		
J. I. Case Co.....			4.2	5.0		
Oliver Farm Equipment Co.....			(1)	4.0		
Minneapolis-Moline Power Implement Co.....		3.5	1.2	.7		
The Massey-Harris Co.....	6.5	5.2	1.8	2.2		
B. F. Avery & Sons Co.....			.4	.3		
Total.....	76.7	84.5	90.3	76.2		

See footnotes at end of table.

TABLE 2.—Percentages of the total number of representative farm implements and machines sold for use in the United States for each of the years 1921, 1929, 1935, 1936, and percentages of the numbers and values in 1937, for specified companies—Continued

Implement or machine	1921	1929	1935	1936	1937	
					Number	Value
Corn binders:						
International Harvester Co.....	70.1	68.8	60.8	64.6	62.9	54.5
Deere & Co.....	17.3	22.2	29.7	24.5	26.6	35.3
J. I. Case Co.....			5.3	4.9	5.5	4.5
The Massey-Harris Co.....	8.0	5.4	4.2	6.0	5.0	5.7
Total.....	95.4	96.4	100.0	100.0	100.0	100.0
Corn pickers—field, horse or tractor:						
International Harvester Co.....	97.5	48.5	29.7	24.3	24.2	21.4
Deere & Co.....		29.4	12.5	21.1	21.3	25.9
J. I. Case Co.....			18.9	15.6	20.7	16.3
Oliver Farm Equipment Co.....		(²)	6.9	9.8	7.2	6.9
Minneapolis-Moline Power Implement Co.....			.5	2.0	2.0	2.8
Total.....	97.5	77.9	68.5	72.8	75.4	73.3
Corn huskers and shredders: International Harvester Co.....	48.4	22.5	¹ 21.9	22.1	29.2	27.3
Ensilage cutters, silo fillers, all types:						
International Harvester Co.....	21.0	24.1	28.5	22.3	24.9	21.0
Deere & Co.....			1.4	.6		
J. I. Case Co.....		7.3	7.8	7.8	9.0	8.0
The Massey-Harris Co.....		1.4	1.7	1.3	1.7	2.3
Total.....	21.0	32.8	39.4	32.0	35.6	31.3
Walking plows, moldboard, 1-horse:						
International Harvester Co.....	2.9	11.0	7.9	5.6	8.1	6.7
J. I. Case Co.....				1.2		
Oliver Farm Equipment Co.....	(¹)	12.7	(¹)	15.2	17.3	21.6
Minneapolis-Moline Power Implement Co.....	(¹)	.8	.2	.2	.2	.2
B. F. Avery & Sons Co.....	17.2	15.2	15.2	12.1	13.8	18.6
Deere & Co.....					5.2	6.8
The Massey-Harris Co.....						.1
Total.....	² 20.1	39.7	² 23.3	34.3	44.9	54.0
Walking plows, moldboard, 2-horse and larger:						
International Harvester Co.....	8.4	14.5	20.7	17.5	19.8	14.8
Deere & Co.....	10.4	12.6	13.0	12.2	19.2	26.1
J. I. Case Co.....	(¹)	.2	1.0		.9	.8
Oliver Farm Equipment Co.....	(¹)	23.2	(¹)	16.7	18.4	19.9
Allis-Chalmers Manufacturing Co.....	(¹)	(³)				
Minneapolis-Moline Power Implement Co.....	(¹)	6.4	2.4	2.5	1.5	2.1
The Massey-Harris Co.....		1.6	.7	1.0	.7	.8
B. F. Avery & Sons Co.....	5.4	4.4	3.4	3.5	4.2	4.1
Total.....	² 24.2	62.9	² 41.2	53.4	64.7	68.6
Sulky plows, moldboard, horse-drawn, 1-bottom and larger:						
International Harvester Co.....	13.0	19.7	18.9	22.3		
Deere & Co.....	12.2	25.2	14.4	14.3		
J. I. Case Co.....	(¹)	.8	5.0	5.2		
Oliver Farm Equipment Co.....	(¹)	13.3	(¹)	19.1		
Allis-Chalmers Manufacturing Co.....	(¹)	(³)				
Minneapolis-Moline Power Implement Co.....	(¹)	7.0	4.2	3.4		
The Massey-Harris Co.....		2.8	1.8	1.6		
B. F. Avery & Sons Co.....	1.8	2.1	2.6	1.8		
Total.....	² 27.0	70.9	² 46.9	67.7		
Tractor plows, moldboard, 1-bottom and larger:						
International Harvester Co.....	15.8	49.1	48.8	35.8	40.0	34.0
Deere & Co.....	5.3	26.5	18.4	25.6	24.5	29.1
J. I. Case Co.....	3.0	4.7	8.1	8.1	8.9	9.1
Oliver Farm Equipment Co.....	(¹)	6.0	(¹)	6.7	6.1	7.0
Allis-Chalmers Manufacturing Co.....		.2	8.3	8.5	11.1	14.6
Minneapolis-Moline Power Implement Co.....	(¹)	2.5	4.5	3.8	2.6	2.9
The Massey-Harris Co.....		1.8	1.1	.9	.9	1.2
B. F. Avery & Sons Co.....	.5	.3	.1	.1	.2	.2
Total.....	² 24.6	91.1	² 89.3	89.5	94.3	98.1

See footnotes at end of table.

TABLE 2.—Percentages of the total number of representative farm implements and machines sold for use in the United States for each of the years 1921, 1929, 1935, 1936, and percentages of the numbers and values in 1937, for specified companies—Continued

Implement or machine	1921	1929	1935	1936	1937	
					Number	Value
Disk harrows, horse and tractor:						
International Harvester Co.	32.2	41.8	35.9	37.5	39.5	33.1
Deere & Co.	17.9	22.4	22.4	22.0	22.8	32.3
J. I. Case Co.	.4	1.5	3.8	5.0	4.0	4.3
Oliver Farm Equipment Co.	(1)	6.3	(1)	6.8	5.6	3.2
Allis-Chalmers Manufacturing Co.	(1)	(2)	1.3	3.0	4.4	6.6
Minneapolis-Moline Power Implement Co.	(1)	3.8	2.5	2.9	2.3	2.9
The Massey-Harris Co.	.9	1.8	1.5	1.3	1.1	1.1
B. F. Avery & Sons Co.	2.5	2.8	2.5	1.9	2.1	1.4
Total	53.9	80.4	69.9	80.4	81.8	94.9
Spike-tooth harrows, sections, steel and wood:						
International Harvester Co.	31.5	28.4	28.0	26.8	30.9	25.8
Deere & Co.	21.6	19.1	19.7	19.7	21.9	22.4
J. I. Case Co.		.9	4.9	5.5	2.7	4.6
Oliver Farm Equipment Co.	(1)	6.3	(1)	6.7	6.6	7.3
Allis-Chalmers Manufacturing Co.	(1)	(3)	1.4	1.9	1.6	2.3
Minneapolis-Moline Power Implement Co.	(1)	5.2	4.5	4.4	4.1	5.6
The Massey-Harris Co.	.6	1.8	1.6	1.5	1.7	2.0
B. F. Avery & Sons Co.	3.6	2.8	3.1	1.9	2.2	2.7
Total	57.3	64.5	63.2	68.4	71.7	72.7
Spring-tooth harrows, sections:						
International Harvester Co.	27.1	34.6	29.0	32.9	34.0	28.4
Deere & Co.	19.4	24.5	18.4	19.9	20.1	16.9
J. I. Case Co.		1.3	5.9	5.9	2.8	4.6
Oliver Farm Equipment Co.	(1)	9.5	(1)	11.5	9.9	10.0
Minneapolis-Moline Power Implement Co.	(1)	3.5	4.8	5.7	5.1	11.2
The Massey-Harris Co.	6.4	3.1	2.9	3.2	2.9	3.0
B. F. Avery & Sons Co.				.1	.7	.8
Allis-Chalmers Manufacturing Co.					2.3	2.5
Total	52.9	76.5	61.0	78.0	78.2	77.4
Corn planters, 2-row, horse or tractor:						
International Harvester Co.	32.3	32.0	34.9	33.4		
Deere & Co.	25.0	41.2	37.3	43.3		
J. I. Case Co.			5.1	4.7		
Oliver Farm Equipment Co.	(1)	2.9	(1)	3.9		
Minneapolis-Moline Power Implement Co.	(1)	2.8	2.6	2.5		
The Massey-Harris Co.		7.1	2.9	2.4		
B. F. Avery & Sons Co.			.7	.4		
Total	57.3	86.0	83.5	90.6		
Cultivators, walking, 1-row, 2-horse:						
International Harvester Co.	7.4	(1)	17.6	19.1	21.1	15.1
Deere & Co.	14.6	18.5	22.8	22.9	21.8	23.8
J. I. Case Co.		(3)	1.3	1.8	1.3	1.0
Oliver Farm Equipment Co.	(1)	25.2	(1)	23.9	16.7	18.9
Minneapolis-Moline Power Implement Co.	(1)	13.4	7.1	8.7	7.1	7.9
B. F. Avery & Sons Co.	5.1	21.4	13.9	14.7	19.4	21.9
Massey-Harris Co.					1.2	1.5
Total	26.1	78.5	62.7	91.1	88.6	90.1
Cultivators, riding, 1-row, 2-horse:						
International Harvester Co.	34.8	44.8	40.1	40.5	43.7	37.7
Deere & Co.	18.7	20.1	21.5	22.9	22.3	23.5
J. I. Case Co.		.4	4.8	4.8	3.8	3.6
Oliver Farm Equipment Co.	(1)	3.0	(1)	4.3	6.7	6.8
Allis-Chalmers Manufacturing Co.		(3)				
Minneapolis-Moline Power Implement Co.	(1)	6.3	3.9	3.6	2.5	3.0
The Massey-Harris Co.	(3)	3.7	2.2	2.4	2.0	2.6
B. F. Avery & Sons Co.	3.1	4.5	2.5	2.9	2.8	3.4
Total	56.6	82.8	75.0	81.4	83.8	85.6

See footnotes at end of table.

TABLE 2.—Percentages of the total number of representative farm implements and machines sold for use in the United States for each of the years 1921, 1929, 1935, 1936, and percentages of the numbers and values in 1937, for specified companies—Continued

Implement or machine	1921	1929	1935	1936	1937	
					Number	Value
Cultivators, riding, 2-row, horse-drawn:						
International Harvester Co.	23.1	27.7	16.6	22.5	18.4	15.3
Deere & Co.	27.1	29.9	18.1	12.8	28.5	33.4
J. I. Case Co.	(1)	.9	2.0	2.8	4.6	4.3
Oliver Farm Equipment Co.	(1)	9.8	(1)	2.1	4.6	4.1
Minneapolis-Moline Power Implement Co.	(1)	3.8	6.2	7.2	4.6	6.9
The Massey-Harris Co.		1.6	3.6	5.6	7.1	6.4
B. F. Avery & Sons Co.	1.4	2.3	2.8	.1	2.1	3.1
Total	51.6	76.0	49.3	53.1	69.9	73.5
Cultivators, tractor-drawn or mounted:						
International Harvester Co.		83.8	56.1	45.7	45.3	35.5
Deere & Co.		10.3	21.1	26.3	25.7	30.9
J. I. Case Co.			6.6	6.3	4.3	3.8
Oliver Farm Equipment Co.		1.5	(1)	6.6	7.2	8.1
Allis-Chalmers Manufacturing Co.			9.5	10.3	12.9	15.7
Minneapolis-Moline Power Implement Co.		1.3	1.8	2.8	2.1	3.1
The Massey-Harris Co.			.4	.8	1.2	1.4
B. F. Avery & Sons Co.				.1	.3	.3
Total		96.9	95.5	98.9	99.0	98.8
Farm wagons:						
International Harvester Co.		4.1				
Deere & Co.		14.6	12.8	14.0	19.0	20.9
Allis-Chalmers Manufacturing Co.				(3)		
Minneapolis-Moline Power Implement Co.			.5	0.3		
Total	(1)	18.7	13.3	14.3	19.0	20.9
Farm trucks, horse-drawn:						
International Harvester Co.		.3	16.6	19.0		
Deere & Co.	40.6	15.4	11.8	17.9		
Total	40.6	15.7	28.4	36.9		
Tractors, all-purpose, wheel-type, all sizes:						
International Harvester Co.		59.9	49.5	42.6	43.1	36.1
Deere & Co.		21.1	24.5	25.7	25.6	30.6
J. I. Case Co.		4.2	7.1	7.4	5.5	5.8
Oliver Farm Equipment Co.		3.3	3.6	6.8	5.8	4.9
Allis-Chalmers Manufacturing Co.		3.2	9.5	11.8	14.2	16.0
Minneapolis-Moline Power Implement Co.		2.3	3.6	3.2	2.7	3.7
The Massey-Harris Co.		2.3	.7	1.2	1.1	1.5
Total	(1)	96.3	98.5	98.7	98.0	98.6
Engines, internal-combustion, under 5 horsepower, except marine:						
International Harvester Co.		15.3	6.9	5.1	5.3	9.7
Deere & Co.		12.7	2.3	2.0	2.0	5.0
The Massey-Harris Co.						.1
Total	(1)	28.0	9.2	7.1	7.3	14.8
Cream separators, all sizes:						
International Harvester Co.		28.7	21.0	23.7		
The Massey-Harris Co.		.1	.1	(3)		
Total	(1)	28.8	21.1	23.7		

¹ Data not available.

² Data for Oliver Farm Equipment Co. not included.

³ Less than 0.05 percent.

⁴ Includes machines sold for export, not shown separately by the Bureau of the Census.

⁵ Does not include data for Oliver Farm Equipment Co. and Moline Plow Co. (predecessor to Minneapolis-Moline Power Implement Co.).

⁶ Does not include data for J. I. Case Co., Oliver Farm Equipment Co., and Moline Plow Co.

⁷ Walking and riding cultivators, combined in company report, total included under riding cultivators.

⁸ Does not include sales of International Harvester Co.

⁹ Includes sales of walking cultivators, sold by the International Harvester Co., reported with riding cultivators.

Source: Information furnished by companies.

TABLE 3.—*Proportion of the total number of representative agricultural implements and machines sold in the United States by International Harvester Co.*

Year	Grain binders	Corn binders	Mowers	Rakes		Combines
				Dump	Side delivery	
1902.....	91	-----	81	67	-----	-----
1911.....	87	76	77	72	-----	-----
1918.....	65	73	60	58	-----	-----
1921.....	73	70	62	51	53	85
1922.....	75	70	67	-----	60	-----
1929.....	68	69	65	56	63	32
1935.....	67	61	60	52	41	32
1936.....	57	65	53	51	37	12
1937.....	67	63	54	51	39	19

	Grain threshers	Corn pickers	Ensilage cutters	Walking plows		Tractor plows
				1 horse	2 horses and larger	
1921.....	5	98	21	3	8	16
1929.....	27	49	24	11	15	49
1935.....	16	30	29	8	21	49
1936.....	20	25	22	7	18	36
1937.....	31	24	25	8	20	40

	Disk	Harrows		Cultivators			
		Spike tooth	Spring tooth	Walking	Riding 1-row	Riding 2-row	Tractor
1921.....	32	32	27	7	35	23	-----
1929.....	42	28	35	-----	-----	28	84
1935.....	36	28	29	18	40	17	56
1936.....	38	27	33	19	41	23	46
1937.....	40	31	34	21	44	18	45

	Tractors	Engines under 5 horse-power	Cream separators
1921.....	-----	-----	-----
1929.....	60	15	29
1935.....	50	7	21
1936.....	43	5	24
1937.....	43	5	-----

Source: Information furnished by company.

TABLE 4.—*Proportion of total number of representative farm implements or machines manufactured by the 8 full- or long-line manufacturers, for the census years 1921, 1929, 1935, 1936, and 1937*

Implement or machine	1921		1929		1935	
	Number of companies	Percent of total	Number of companies	Percent of total	Number of companies	Percent of total
Grain and rice binders.....	4	92.7	4	96.3	4	95.3
Combines, all widths.....	1	89.7	5	70.8	6	94.8
Grain threshers, all sizes, including rice and alfalfa.....	2	36.0	4	62.6	6	61.4
Corn binders, horse- or tractor-drawn.....	3	78.9	3	96.0	4	100.0
Corn pickers, field, horse- or tractor-drawn.....	1	98.3	2	76.0	5	56.6
Corn huskers and shredders.....	1	65.2	1	37.9	1	35.6
Ensilage cutters, silo fillers, all types.....	1	25.8	3	38.7	4	41.4
Mowers, horse or tractor.....	4	83.5	5	91.0	7	94.1
Rakes, sulky dump.....	4	78.4	5	84.3	6	91.0
Rakes, side delivery, combined rakes and tedders.....	4	88.4	5	93.1	6	86.1
Hay loaders, all types.....	3	49.8	4	88.1	5	96.7
Walking plows, moldboard, 1-horse.....	2	33.7	4	44.9	4	44.0
Walking plows, moldboard, 2-horse and larger.....	3	27.1	8	58.5	7	56.8
Sulky plows, moldboard, horse-drawn 1 bottom and larger.....	3	32.7	8	84.3	7	72.0
Tractor plows, moldboard, 1 bottom and larger.....	3	28.1	8	91.7	8	93.9
Disk harrows, horse and tractor.....	4	51.0	8	83.0	8	76.8
Spike-tooth harrows, sections, steel and wood.....	4	59.7	8	65.8	8	72.6
Spring-tooth harrows, sections.....	3	59.6	6	77.1	6	72.8
Corn planters, 2-row, horse or tractor.....	2	62.1	5	88.2	7	84.2
Row-crop cultivator, walking, 1-row, 2-horse.....	3	24.3	4	79.5	6	85.8
Row-crop cultivator, riding, 1-row, 2-horse.....	3	59.2	8	85.2	7	81.3
Row-crop cultivator, riding, 2-row, horse-drawn.....	3	60.0	7	79.8	7	68.2
Row-crop cultivator, tractor-drawn or mounted.....			4	96.8	7	98.6
Farm wagons.....	1	2.8	1	16.1	2	13.4
Farm trucks, horse drawn.....	1	100.0	2	13.5	2	29.9
Tractors, all-purpose, wheel-type, all sizes.....	4	26.3	7	96.4	7	98.7
Engines, internal-combustion (except marine) under 5 horsepower.....	2	17.4	2	31.3	2	11.3
Cream separators, all sizes.....	1	21.1	1	32.6	1	23.1

¹ Does not include sales of Moline Plow Co. (predecessor of Minneapolis-Moline Power Implement Co.) and Oliver Farm Equipment Co.

² Does not include data for J. I. Case Co., Moline Plow Co. (predecessor of Minneapolis-Moline Power Implement Co.) and Oliver Farm Equipment Co.

³ Does not include data for International Harvester Co.

⁴ Total by this company exceeds the number manufactured as reported by the Bureau of the Census.

TABLE 4.—*Proportion of total number of representative farm implements or machines manufactured by the 8 full- or long-line manufacturers, for the census years 1921, 1929, 1935, 1936, and 1937—Continued.*

Implement or machine	1936		1937		
	Number of companies	Percent of total	Number of companies	Percent of—	
				Number	Value
Grain and rice binders.....	5	95.8	5	93.5	94.8
Combines, all widths.....	6	92.4	6	91.4	86.9
Grain threshers, all sizes, including rice and alfalfa.....	6	77.4	3	61.3	53.1
Corn binders, horse- or tractor-drawn.....	4	100.0	4	100.0	100.0
Corn pickers, field, horse- or tractor-drawn.....	5	68.9	5	75.0	72.7
Corn huskers and shredders.....	1	34.0	1	32.4	30.5
Ensilage cutters, silo fillers, all types.....	4	33.6	3	38.9	34.1
Mowers, horse or tractor.....	8	92.6	8	93.3	94.6
Rakes, sulky dump.....	7	88.7	7	89.9	91.4
Rakes, side delivery, combined rakes and tedders.....	7	78.4	7	78.3	75.4
Hay loaders, all types.....	7	77.2	7	77.1	73.1
Walking plows, moldboard, 1-horse.....	5	38.9	6	50.2	57.6
Walking plows, moldboard, 2-horse and larger.....	6	55.6	7	63.9	69.3
Sulky plows, moldboard, horse-drawn, 1 bottom and larger.....	6	75.5	6	92.8	95.4
Tractor plows, moldboard, 1 bottom and larger.....	8	89.4	8	93.0	97.2
Disk harrows, horse and tractor.....	8	79.2	8	83.5	87.2
Spike-tooth harrows, sections, steel and wood.....	8	69.4	8	73.4	71.0
Spring-tooth harrows, sections.....	7	77.5	8	78.4	69.1
Corn planters, 2-row, horse or tractor.....	7	91.1	8	90.3	90.7
Row-crop cultivator, walking, 1-row, 2-horse.....	5	92.3	7	88.1	89.8
Row-crop cultivator, riding, 1-row, 2-horse.....	7	81.9	7	84.5	86.3
Row-crop cultivator, riding, 2-row, horse-drawn.....	4	17.3	4	52.7	53.5
Row-crop cultivator, tractor-drawn or mounted.....	8	98.8	8	98.7	98.6
Farm wagons.....	3	12.9	1	17.9	19.8
Farm trucks, horse drawn.....	2	38.4	2	39.8	47.8
Tractors, all-purpose, wheel-type, all sizes.....	7	98.8	7	97.9	98.6
Engines, internal-combustion (except marine) under 5 horsepower.....	2	9.9	3	9.5	18.8
Cream separators, all sizes.....	1	22.3	1	30.9	37.8

Source: Information furnished by companies.

TABLE 5.—*International Harvester Co. Price Comparisons 1933 and 1939*

Machine	Type of wheel equipment	Dealers' 1938 contract price, f. o. b., factory or Chicago	Special net price reduction, effective June 27, 1938	Dealers' 1939 contract price, f. o. b., factory or Chicago	Per cent of reduction	Date price reduction effective
WH-1, 14-inch walking plow (steel).		\$18.85		\$18.10	4.0	Nov. 1, 1938
No. 2, Diamond, 2-furrow gang plow (chilled).		95.50		91.50	4.2	Do.
6-foot horse-drawn harrow (12-16)		42.80		40.80	4.7	Do.
60-tooth, 2-section, peg-tooth harrow.		18.10		17.40	3.9	Do.
New 4-cultivator, 1-row, horse-drawn, 4-shovel pin break.		48.75		46.25	5.1	Do.
No. 3 cream separator.		86.25		74.63	13.5	Oct. 17, 1938
No. 4A manure spreader.		147.00		139.00	5.4	Nov. 1, 1938
No. 7 5-foot mower, regular-lift, horse-drawn.		75.75		72.75	4.0	Do.
Type E, 6-foot grain binder with 3-horse hitch.		198.50		192.50	3.0	Do.
No. 8, Little Genius, 2-furrow 14-inch tractor plow.		99.50		96.00	3.5	Do.
No. 10A, tractor disk harrow, 7 feet with 28-16 disks.		85.55		79.55	7.0	Do.
FA-112, 4-row pull tractor corn planter.		160.25		166.25		Do.
No. 215H, 2-row Farmall tractor cultivator.		86.50		80.50	6.9	Do.
Type B, 8-inch feed grinder.		38.50		37.35	3.0	Do.
14 by 18 power hay press.		417.00		402.00	3.6	Do.
No. 12B Ensilage cutter.		285.00		277.50	2.6	Do.
W-14, tractor.	Steel.	604.00		584.00	3.3	Oct. 4, 1938
O 14, tractor.	Pneumatic.	724.00		768.00		Do.
10-20, tractor.	Steel.	760.00		760.00		
Do.	Pneumatic.	912.40		912.40		
W-30, tractor.	Steel.	860.00		860.00		
Do.	Pneumatic.	1,012.40		1,012.40		
W-40, tractor.	Steel.	1,020.00		1,044.00		
Do.	Pneumatic.	1,245.60		1,269.60		
WD-40 Diesel tractor.	Steel.	1,740.00		1,768.00		
Do.	Pneumatic.	1,965.60		1,993.60		
F-12 Farmall tractor.	Steel.	500.00		476.00	4.8	Oct. 4, 1938
Do.	Pneumatic.	668.60		614.20	8.1	Do.
F-14 Farmall tractor.	Steel.	544.00		524.00	3.7	Do.
Do.	Pneumatic.	712.60		662.20	7.1	Do.
F-20 Farmall tractor.	Steel.	788.00		700.00	11.2	Do.
Do.	Pneumatic.	952.00		840.00	11.8	Do.
F-30 Farmall tractor.	Steel.	920.00		860.00	6.5	Do.
Do.	Pneumatic.	1,085.20		1,020.00	6.0	Do.
T-20 TracTracTor.	Standard tread.	1,260.00	160.00	1,100.00	12.7	Do.
Do.	Wide tread.	1,298.00	160.00	1,138.00	12.3	Do.
T-35 TracTracTor.	Standard tread.	1,872.00	245.00	1,612.00	13.9	Do.
Do.	Wide tread.	1,932.00	245.00	1,672.00	13.5	Do.
T-40 TracTracTor.	Standard tread.	2,280.00	75.00	2,200.00	3.5	Do.
Do.	Wide tread.	2,440.00	75.00	2,360.00	3.3	Do.
TD-35 Diesel TracTracTor.	Standard tread.	2,180.00	240.00	1,928.00	11.6	Do.
Do.	Wide tread.	2,240.00	240.00	1,988.00	11.3	Do.
TD-40 Diesel TracTracTor.	Standard tread.	2,980.00	180.00	2,760.00	7.4	Do.
Do.	Wide tread.	3,132.00	180.00	2,912.00	7.0	Do.
No. 60 harvester thresher.	Pneumatic.	680.00		556.00	18.2	Nov. 1, 1938
No. 22 harvester thresher.	Steel.	972.00		860.00	11.5	Do.
No. 31T harvester thresher.	do.	1,348.00		1,288.00	4.5	Do.
No. 31RD harvester thresher.	do.	1,380.00		1,320.00	4.3	Do.
No. 31 RW harvester thresher.	do.	1,620.00		1,540.00	4.9	Do.
No. 51 harvester thresher (hill-side).	do.	2,120.00		2,040.00	3.8	Do.

¹ Price increased from \$160.25 to \$170.25 on Feb. 2, 1938, because of improved design. Reduced Nov. 23, 1938, effective Nov. 1, 1938, to \$166.25.

² Price increased from \$724 to \$788 on Apr. 15, 1938, because of improvements in design which provided additional power, a low seat arrangement and new style fenders, especially designed for work in citrus groves. Price was reduced Oct. 4, 1938, to \$768.

³ Price increased, effective March 28, 1938, to cover 4-speed transmission substituted for 3-speed transmission.

⁴ Reduced June 8, 1938 from \$972 to \$876. Further reduced Nov. 23, 1938 effective Nov. 1, 1938, from \$876 to \$860.

Source: Information furnished by company.

TABLE 6.—*Comparison of 1938 and 1939 dealer prices for combines, for Deere & Co.*

Price on combines	1938 dealers' price	1939 dealers' price
No. 6, 6-foot John Deere power-driven combine, with grain tank, small grain....	\$688.00	\$608
No. 6, 6-foot John Deere motor-driven combine, with grain tank, small grain....	923.65	760
No. 7, 8-foot John Deere combine, with grain tank and auxiliary motor, small grain.....	1,060.00	972
No. 5A, 12-foot John Deere combine with grain tank and auxiliary motor, small grain.....	1,300.00	1,276
No. 17, 16-foot John Deere combine with one-piece platform, grain tank and auxiliary motor, small grain.....	1,596.00	1,556
No. 36, 20-foot John Deere level-land combine with auxiliary motor and sacking attachment, small grain.....	2,080.00	2,044
No. 36B, 20-foot John Deere medium hillside combine with auxiliary motor and sacking attachment, small grain.....	2,260.00	2,220
No. 36A, 16½-foot John Deere extreme hillside combine, with auxiliary motor and sacking attachment, small grain.....	2,780.00	2,716
No. 35, 16½-foot John Deere hillside combine, with auxiliary motor and sacking attachment, small grain.....	2,080.00	2,048

Source: Information furnished by company.

LIBRARY
BALDWIN-WALLACE COLLEGE
BEREA, OHIO

MEMORANDUM CONCERNING INDICATIONS OF COMPLIANCE ON THE PART OF LARGE MANUFACTURERS IN THE AGRICULTURAL IMPLEMENT INDUSTRY WITH RECOMMENDATIONS MADE BY THE FEDERAL TRADE COMMISSION IN AN EFFORT TO ELIMINATE UNDESIRABLE TRADE PRACTICES WITH RESULTING BENEFITS TO THE PUBLIC

CONCLUSIONS OF THE COMMISSION WITH RESPECT TO CONCENTRATION AND FULL-LINE FORCING

In its inquiry into the farm implement and machinery industry, the Commission found:²

There is a high degree of concentration, accompanied by price leadership, in the manufacture and wholesale distribution of farm implements and machines in both the domestic and export business. The bulk of the business is now in the hands of five companies. This concentration has come about and continues to increase largely as the result of consolidations of competing concerns to form larger units such as International Harvester Co., Minneapolis-Moline Power Implement Co., and Oliver Farm Equipment Co.; and of the acquisition of independents by International Harvester Co., Deere & Co., Allis-Chalmers Manufacturing Co., and J. I. Case Co. The dominance by a few companies is evidenced by their proportion of investments, profits, volume of production, and sales of certain implements, control of wholesale and retail outlets, and price leadership.

From the standpoint of size, in terms of capital invested and volume of sales, International Harvester Co. dominates the farm machinery industry.

Companies reporting to the Commission manufacture and sell over 95 percent of all the farm implements made and sold in this country. The investment of International Harvester Co. in the United States exceeded 55 percent of the combined investments of the 62 reporting companies (including International) for the year 1936. Except for a few of the leading long-line manufacturers the investments of all reporting companies comprising most of the industry were relatively small compared with that of International Harvester Co., whose investment substantially exceeded the combined investment of all other companies. The next particularly large company was Deere & Co., whose investment for 1936 was about 19 percent of the total.

During 1936, International Harvester Co.'s farm-machinery sales of domestic manufacture, including motortrucks and binder twine, were equivalent to approximately 53 percent of the farm-machinery sales of all reporting companies combined. If the company's sales of motortrucks and binder twine are not included, since it is the only one of the reporting companies who manufacture these products, and since a considerable portion of the sales of motortrucks are for industrial use primarily, its sales for 1936 would still be equivalent to over 41 percent of the farm-machinery sales of all reporting companies combined. Deere & Co. sales were equivalent to about 21½ percent of the combined farm-machinery sales of all reporting companies in that year. Compared with these companies, the sales of nearly all the other reporting companies were small.

A study made of 28 important implements and machines sold for use in the United States in 1936 indicates that from 4 to 8 of the largest farm-machinery manufacturing companies made from 50 to 100 percent of each of 21 of the 28 implements. Concentration of production and sale is greatest for grain harvesters, corn binders, and corn pickers, threshers, haying machinery, corn planters, tractors, tractor plows, harrows, and cultivators. For 13 of the 20 implements for which concentration was greatest, International Harvester Co. and Deere &

² Federal Trade Commission, Report on the Agricultural Implement and Machinery Business, 1938, pp. 1023-1024.

Co. made more than half of the total in the United States, and for 3 other machines, 1 of these 2 companies, and 1 other company, together, made more than half. For 17 of the 20 implements in which concentration was greatest, International Harvester Co. was the largest producer, and for 16 of them Deere & Co. was the second largest.

The dominance and price leadership by these large companies is the result almost solely of their size and great financial strength; and this, in turn, was achieved very largely through merger, purchase of control of formerly competing manufacturers, and purchase of the plants and other assets of either competing or other farm-implement companies.

The Commission believes that a merger of important competitors in an industry is likely to be even more destructive of effective competition than temporary price agreements or understandings. While the Clayton Act forbids a company to purchase the capital stock of another company where the effect may be to substantially lessen competition or tend to create a monopoly, the act does not forbid the purchase of the factories, equipment, or any other assets of a competitor, even though the result would be more effective than that accomplished by acquisition of stock.

The practice of merging competitors followed by various farm-machinery companies with respect to different lines, has been going on for half a century, and has tended to a constantly increasing concentration of economic power.

It also has facilitated price control and price understandings among competitors, either by following a "leader," or by price agreements, or both.

The table on the following page shows the situation with respect to concentration in the sale of 28 typical important farm implements in 1937, for most implements, and in 1936, for the remainder:

TABLE 7.—*Proportion of the number of 28 important groups of farm implements and machines sold in the United States in 1937 (or 1936 for those marked *) for the 8 leading manufacturers*

	Inter- national	Deere	Case	Oliver	Allis- Chal- mers	Minne- apolis- Moline	Massey- Harris	Avery	Allother manu- facturers
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Grain binders.....	68.6	20.6	5.0				1.1	0.3	4.4
Corn binders.....	62.9	26.6	5.5				5.0		
Mowers.....	54.2	21.1	5.7	5.9	1.3	0.6	1.8	2.0	7.4
Sulky rakes.....	50.8	19.9	6.1	6.1		1.1	2.0	3.1	10.9
Cultivators:									
Tractor.....	45.3	25.7	4.3	7.2	12.9	2.1	1.2	.3	1.0
Riding, 1-row, 2-horse....	43.7	22.3	5.8	6.7		2.5	2.0	2.8	14.2
Tractors.....	43.1	25.6	5.5	5.8	14.2	2.7	1.1		2.0
Tractor plows.....	40.0	24.5	8.9	6.1	11.1	2.6	.9	.2	5.7
Disk harrows.....	39.5	22.8	4.0	5.6	4.4	2.3	1.1	2.1	18.2
Side-delivery rakes.....	39.0	26.3	7.9	3.1		.4	1.9	.6	20.8
Hay loaders*.....	*38.6	*25.4	*5.0	*4.0		.7	2.2	.3	23.8
Spring-tooth harrows.....	34.0	20.1	2.8	9.9	2.3	5.1	2.9	.7	22.2
Corn planters*.....	*33.4	*43.3	*4.7	*3.9		*2.5	*2.4	*.4	9.4
Spike-tooth harrows.....	30.9	21.9	2.7	6.6	1.6	4.1	1.7	2.2	28.3
Grain threshers.....	30.5	9.6	16.6	4.1	5.4	4.1			29.7
Corn huskers and shredders.....	29.2								70.8
Ensilage cutters.....	24.9		9.0				1.7		64.4
Corn pickers.....	24.2	21.3	20.7	7.2		2.0			24.6
Cream separators*.....	*23.7								76.3
Sulky plows*.....	*22.3	*14.3	*5.2	*19.1		*3.4	*1.6	*1.8	32.3
Cultivators.....	21.1	21.8	1.3	16.7		7.1	1.2	19.4	11.4
Walking plows, 2-horse and larger.....	19.8	19.2	.9	18.4		1.5	.7	4.2	35.3
Combines.....	19.1	14.6	4.1	6.5	38.6	8.4			8.7
Farm trucks*.....	*19.0	*17.9							63.1
Cultivators, 2-row, riding.....	18.4	28.5	4.6	4.6		4.6	7.1	2.1	30.1
Walking plows, 1-horse.....	8.4	5.2		17.3		.2		13.8	55.1
Engines, under 5 horse- power.....	5.3	2.0							92.7
Farm wagons.....		19.0							81.0

Source: Information furnished by companies.

The table shows that for the year specified (1936 or 1937) International Harvester sold in excess of 50 percent of 4 of the 28 important farm implements, for 4 others its sales constituted 40 to 45.3 percent of

the country's total, and that its sales of 15 important implements exceeded 30 percent of the United States total. Deere & Co. ranked first in sales of corn planters, cultivators, and 2-row riding cultivators. The large number, approximately 200, other manufacturers, in particular, were important in the manufacture and sale of farm engines, farm wagons, cream separators, and corn huskers and corn shredders.

In the farm implement and machine industry, there are two types of manufacturers, viz, the long-line companies, i. e., companies manufacturing practically all of the different types of implements and machines; and the short-line companies, i. e., companies producing only a few farm implements or machines. The Commission found that:³

* * * Growth in size has facilitated the control of large companies over dealer outlets, especially through their policy of requiring dealers to handle their respective lines exclusively. This practice of full line forcing has, in turn, fortified the domination of the large manufacturers in the industry.

The Commission's inquiry indicates that under this policy of exclusive dealing, sometimes referred to in the industry as "full-line forcing" or "100-percent dealership," distinct pressure is often brought to bear upon dealers by manufacturers to prevent them from handling other manufacturers' competing products. These practices usually forced the dealer to handle only the products of a single long-line manufacturer. This result was made possible by the few large manufacturers acquiring control of other implement companies, thus enabling them to produce a full line.

Not all dealers handling the products of a large manufacturer confined their farm implements to those of the one manufacturer, although the other products openly handled generally were noncompetitive; and certain retailers handled important competing products surreptitiously. However, to the extent that the efforts of the leading manufacturers' salesmen, by coercion, to prevent dealers from handling the implements of other manufacturers are successful, each manufacturer of competing products is forced to set up separate dealers to handle his products. This imposes great difficulties upon the smaller, short-line manufacturers. The frequent necessity of finding new dealers involves increased selling expense, while the setting up of new dealerships, many doing only small volumes of business at relatively high retailing expense, is not conducive to efficiency in retail distribution. Any undue expense involved must either be absorbed by manufacturers and dealers or passed on to farmers. Both appear to result. Consequently, not only is the ability of the short-line manufacturers to compete with the large manufacturers impaired, but prices to farmers tend to be enhanced. To the extent, also, that the ability of short-line companies to compete on a price basis is reduced, the dominant position of the leading companies in the industry is strengthened, and it becomes easier for them to effectively control prices at levels profitable to themselves.

While such actions may constitute the very essence of unfair competition, it is often very difficult to obtain the tangible proof necessary to initiate legal proceedings to cure the evil. Situations of this sort bristle with practical difficulties both for the manufacturers and the dealers, but where a monopolistic position is acquired by a manufacturer, the advantage he thus obtains over the dealers is too great to make it possible to check such unfair methods by ordinary means.

CORRECTIVE MEASURES TAKEN BY LEADING COMPANIES

The Commission's report on the agricultural implement and machinery industry was transmitted to the Congress under date of June 6, 1938, and under date of August 16, 1938, William S. Elliott, the vice-president and general counsel of International Harvester Co. wrote the chief economist of this Commission as follows:

FARM MACHINERY INQUIRY

DEAR SIR: For your information, I am handing you draft of a letter to be sent by C. R. Morrison, vice-president in charge of sales, to all branch managers of the

³ Federal Trade Commission, Report on the Agricultural Implement and Machinery Business, 1938, pp. 1024-1025.

International Harvester Co. in the United States, also draft of a letter which each branch manager is instructed to send to the implement dealers in his territory handling the International line.

The management plans to have these letters followed up by an earnest effort on the part of our district managers and branch managers to prevent the recurrence of any cases of dealer coercion such as are cited and criticized in the report of your Commission.

Yours very truly,

WILLIAM S. ELLIOTT,
Vice-President and General Counsel.

The form letters sent by C. R. Morrison, vice-president in charge of sales, to the branch managers of International Harvester Co. and the form letters "to be signed by each branch manager and sent to every dealer in his territory handling International Harvester Co. goods"; contained the following:

FEDERAL TRADE COMMISSION REPORT—TRADE PRACTICES

The Federal Trade Commission has recently issued a report on its investigation of the farm machinery industry. One section of the report states in substance that coercion of dealers by long-line manufacturers to refrain from handling competitive goods of short-line manufacturers exists to such an extent as to substantially affect competition and warrant criticism.

The report cites specific complaints, some involving our company and some involving other long-line companies, of the following character:

(a) Pressure brought to bear on dealer to refrain from handling competitive machines in the form of threats, expressed or implied, that he would lose his long-line contract if he did not comply.

(b) Over-stocking of dealer to prevent the handling of competitive lines.

(c) Dealer required to purchase machines not suitable for use in his territory.

We believe that the Federal Trade investigators have over-estimated the number of instances where sales methods of the character complained of have been used. But whether there are many or few it should be clearly understood that any such sales methods are definitely against company policy and I write this letter to personally advise you to that effect.

An official of a manufacturing company who stated his company had had orders and contracts canceled because dealers handling International implements had been threatened with the loss of their dealership by representatives of International Harvester Co., if they did not stop handling his company's products, furnished this Commission with a copy of the form letter sent to dealers by the Louisville, Ky., International branch manager. The letter was dated September 2, 1938, and it was identical with the one furnished to the Commission by the vice-president and general manager of International Harvester Co. Under date of September 26, 1938, three officials of this short-line manufacturing company, above referred to, called at the Commission's offices and stated in substance that:

At the 1938 Indiana State Fair, a number of dealers that they recognized as International dealers looked over their company's exhibit and that several of them remarked that they were free from the "ball and chain", or that "the ball and chain had been severed" and that they were then permitted by International to handle the products of other implement manufacturers.

The importance of full-line forcing to the small manufacturer is realized when attention is called to the fact that in many agricultural regions, only one or two farm implement dealers can exist in a town. When these dealers are under contract with International and Deere, or in case a community can support three dealers, the dealers are under contract with International, Deere, and Case; it had been impossible for a short-line manufacturer to get representation for its products unless one of the dealers under contract with a long-line company would also handle the short-line company's products. Allis-Chalmers had never objected to its dealers handling the informant's line.

Deere & Co. in its Branch House Bulletin No. 873, dated November 8, 1938, stated in the first two paragraphs:

The Federal Trade Commission, in its recent report on the farm implement business, criticized severely what it termed "the policy of full-line forcing," saying, among other things, that the "use of compulsion on dealers to handle long lines exclusively becomes an unfair utilization of superior economic advantages possessed by large companies to intrench themselves in their positions. Trade between short-line manufacturers as willing sellers, and dealers who would be willing buyers, were it not for the coercive tactics of long-line manufacturers, is restrained.

It is also said that—

When Deere & Co. was formed, in 1911, as a consolidation of a number of one-time independent corporations producing non-competing lines of implements, and subsequently continued to lengthen its line by the acquisition of other independent manufacturing companies, it placed itself in the position of being able to offer a full line to each of its dealers, and because of the high reputation of the Deere name was in a position to insist that dealers handle its full line to the exclusion of the lines of competing manufacturers.

This bulletin called attention to the cases presented in the Commission's report which were illustrative of the methods used in influencing home dealers to handle exclusively the products of a particular long-line company and quoted from "The Salesman's Manual", which was published soon after the company's organization in 1911, as follows:

Don't use the "big stick" in getting business. The use of excessive coercion is unbusinesslike. A dealer has his rights the same as we have. He isn't obliged to buy from us; in fact, he does us a favor by giving us his business. Sometimes the salesman is inclined to use the "big stick." This is not our policy. We do not want anyone in our organization to use such methods, for we have no "big stick." Instead of telling the dealer what we want him to do, it is a wise practice to calmly point out to him how he will profit by adopting our policy by handling the full line of John Deere goods. The final decision should be left entirely to him.

We do not seek any monopoly. We have a strong competition from both large and small concerns on every one of the important lines which go to make up our full line. Our full line must be sold on its merits alone. A salesman should impress the dealer with the fact that what he is trying to do is to the dealer's advantage, as well as to our own.

The company closed its bulletin as follows:

We attach hereto a copy of that portion of the report of the Commission which describes the complaints received by it. If any branch house manager is able to identify any of these complaints, we wish he would do so and report to us, stating fully all the surrounding facts and circumstances. Managers will also advise their organizations, including salesmen, of these complaints, and of the criticism they have brought upon us, and that the competitive policy of Deere & Co., as hereinbefore set forth, is to be observed.

We realize, of course, that in the future as in the past, some few dealer relationships will be discontinued, but when this happens be sure that good cause exists; that the matter is not handled with a "big stick," but under the fair and equitable John Deere policy as hereinabove set forth. We have the right to choose our own customers, but the choice should be made in a spirit of competitive fairness, as, in the main at least, we believe it to have been.

We repeat the statement from the Branch House Instructions to Salesmen which we have already quoted:

"Instead of telling the dealer what we want him to do, it is a wise practice to calmly point out to him how he will profit by adopting our policy by handling the full line of John Deere goods. The final decision should be left entirely to him. We do not seek any monopoly."

This was our policy, announced upon the formation of this company in 1911. It is our policy today. It has always been our policy.

Very truly yours,

DEERE & Co.,
By BURTON F. PEEK,
Vice-President.

Forest D. Siefkin, general attorney for the International Harvester Co., informed the chief economist of the Federal Trade Commission, under date of April 24, 1939, that the International—

* * * had notified its competitors of its policy with respect to exclusive dealing and full-time forcing.

The notification was—

* * * sent to all of the principal short line implement manufacturers on October 28, 1938.

OTHER TRADE PRACTICE REFORMS

In addition to the voluntary changes made by International Harvester Co., described in the preceding paragraphs, the vice-president and general counsel of that company wrote the chief economist of this Commission, under date of October 13, 1938, as follows:

DEAR SIR: Some time ago I advised you of the special measures being taken by our sales executives to obtain more complete observance by the field organization of the company's policies against coercion of dealers and to prevent any further instances of the kind cited in your recent report.

As a further measure for the same purpose, I now write to inform you that beginning with our next fiscal year, November 1, 1938, all sales blockmen responsible for sales of farm implements to dealers in defined territories will be paid on a straight salary basis without the possibility of earning any additional bonus or commission based on the sales volume in said territory as heretofore.

While there has been nothing unusual in our company's method of compensating salesmen, your report indicates that in the opinion of some dealers (and we are advised that it is also the opinion of some of the Commission's staff) the personal interest of each blockman to increase sales in his territory may have been responsible for some of the cases of improper pressure cited in your report.

We are taking this action in deference to this opinion and with a view to omitting no measures which may be helpful in eliminating unauthorized and unfair trade practices on the part of company employees.

For the coming contract year beginning November 1, 1938, we are also making substantial changes in the volume discounts heretofore allowed to dealers on total purchases under their annual contracts. Volume discounts (which were not originated by our company) have been an old custom in the trade. We believe they have a sound basis in the fact of substantial savings in sales expense and the fairness of sharing these savings with the dealers. Of late, however, there has been some feeling among smaller dealers which is noted in your report that existing volume discounts are making competition difficult between large and smaller dealers in nearby territories. We do not think many dealers would like to see volume discounts wholly abolished and after a good deal of consideration it has seemed to our sales executives that the fairest plan for all concerned would be to reduce the amount and spread of the discounts.

The old discount plan stepped up (on the income tax nonretroactive bracket basis) to a maximum of 5 percent on purchases above \$50,000. Under the new scale now adopted for the coming year the maximum discount will be 2 percent allowed on purchases above \$30,000.

We believe this reduced scale will leave all dealers on a reasonably competitive basis with each other, at the same time treating them fairly through sharing in the savings on volume transactions.

So far as we have been able to study the report of your Commission which has just become available in print, the matters above referred to are the only trade practices of our company the propriety of which have been questioned. If, however, we are mistaken and any other practices are considered objectionable, we would appreciate the opportunity to discuss the same with your staff. It is the earnest purpose and desire of the management of the Harvester Co. to keep its trade practices above criticism so far as possible.

Very truly yours,

WM. S. ELLIOTT.

These voluntary actions on the part of the leading agricultural implement manufacturers, with respect to trade practices following this Commission's criticism of certain practices, should do much to enable the efficient smaller manufacturers to obtain needed retail outlets and place the smaller retail dealers in a more favorable competitive position, and thereby increase competition to the benefit of the American farmer.

PRICES OF AGRICULTURAL IMPLEMENTS

As stated in the Commission's report on the agricultural implement and machinery industry:⁴

* * * there had been complaint on the part of organized farmers in various parts of the country concerning prices of agricultural implements and machines and their repair parts. The gravamen of these complaints centered in the disparity between the prices of farm products, which, in 1932, for certain major crops, reached a record low, and the prices of many farm implements and machines and their repair parts which were maintained at a high level.

In the Commission's inquiry it was found the prices of agricultural implements, like those of many other manufactured products, were high in 1929. Following 1929, the Commission found that—⁵

There was a slight decline in the prices of farm implements and machines from 1929 through the years of severest industrial depression, 1932 and 1933. There were very few articles of farm equipment the prices of which were reduced more than 10 percent during this period. Small-capacity cream separators were reduced in price about 11 percent; medium-capacity cream separators about 15 percent. The prices of two-horse 12-inch plows and of two-bottom 24-inch horse-drawn gang plows were reduced slightly more than 10 percent; those of two-horse 14-inch plows were lowered approximately 15 percent. From 1932 to 1933, the prices of hammer mills dropped approximately 24 percent. These constituted most of the articles of farm equipment the prices of which were reduced 10 percent or more. Most of the reductions, where reductions were made, ranged from 8 percent down to a fraction of 1 percent; and the prices of many farm implements and machines were actually increased during these years of severest depression—the prices of 10-foot grain binders were increased about 11 percent.

PRICES OF FARM PRODUCTS AND CERTAIN MANUFACTURED PRODUCTS

In comparison with these slight reductions in the prices of farm implements and machines, the average farm prices of eggs fell 52 percent, of cattle 61 percent, of wheat 62 percent, of lambs and hogs 63 percent, of cotton 67 percent, and of corn 68 percent. The suggested retail prices of four-door sedan automobiles were reduced about 16 percent by November 1932 and nearly 20 percent by February 1933. The prices of 1½-ton trucks were reduced approximately 33 percent by December 1932. Those of gas ranges were lowered 19 percent by May 1932. The prices of electric refrigerators had been lowered 42½ percent by December 1932 and 52 percent by July 1933; those of ice refrigerators had been reduced 30 percent by December 1932. The prices to contractors of warm-air furnaces for dwellings were reduced 19 percent by January 1932 and the prices of hot-water boilers for heating dwellings were reduced 34 percent by February 1932, and 39 percent by November 1933.

INCREASE IN FARM IMPLEMENT AND MACHINE PRICES FROM 1933 TO 1938

There was a general increase in the prices of farm implements and machines from 1933 to 1935. Of all of the kinds of farm equipment concerning which price data were obtained in this investigation, there were only four types that did not participate in this general increase. They were two-bottom tractor-drawn disk plows, the plow type of potato digger, small gasoline engines, and hammer mills. So extensive was this upward movement of the prices of farm equipment that the

⁴ Federal Trade Commission, Report on the Agricultural Implement and Machinery Business, 1938, p. 33.

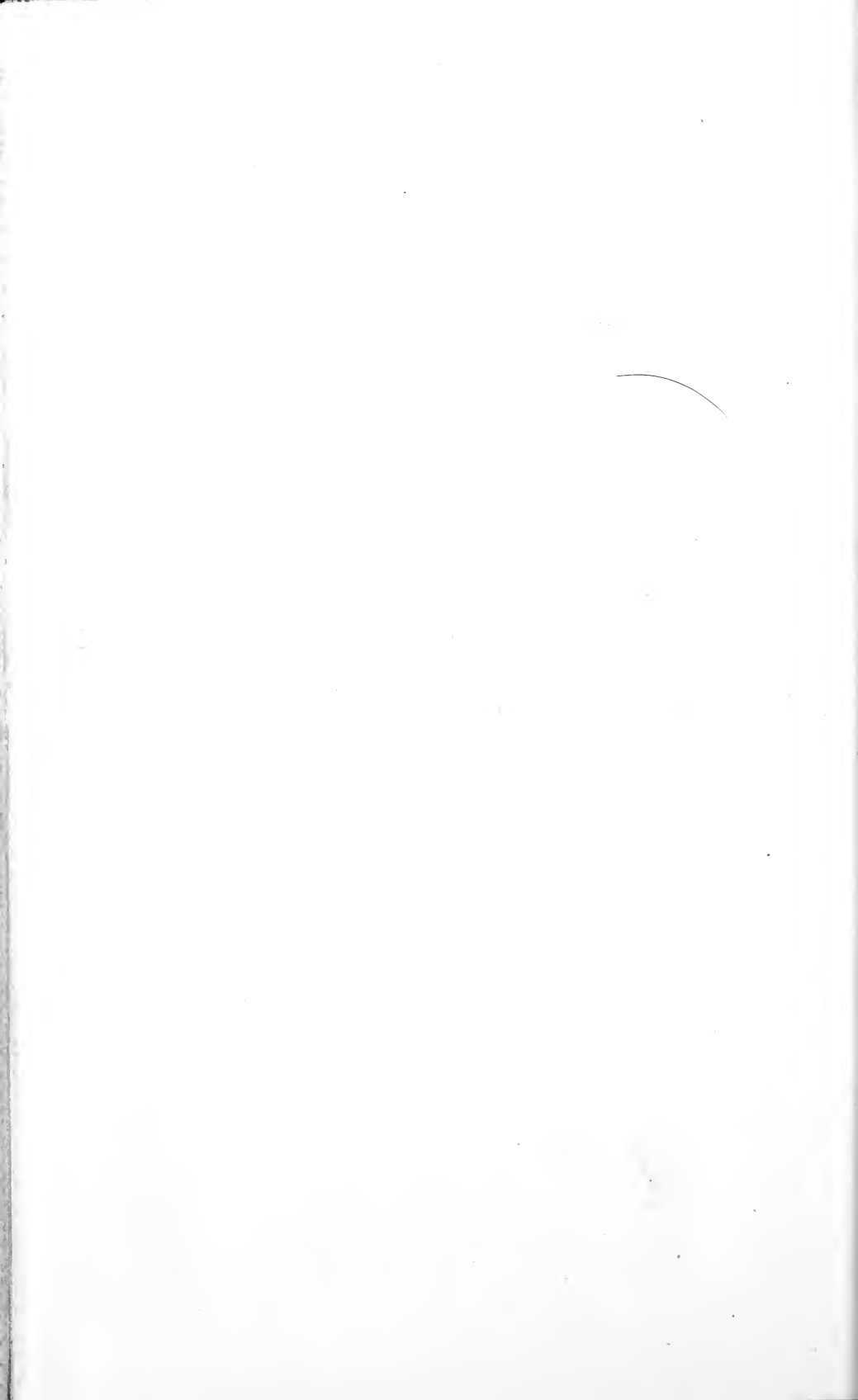
⁵ Ibid. pp. 410-411.

prices of a majority of the various kinds of such equipment in 1935 were above their prices in 1929. The general upward trend in the prices of farm implements and machines continued through 1936, 1937, into 1938.

As a result of this movement, there were very few farm implements and machines the prices of which at the beginning of 1938 were lower than they were in 1929. The prices of hammer mills in 1938 averaged about 20½ percent below what they were in 1932. This was the only article the price of which at the end of this period was substantially lower than its price at the beginning. There were a few other articles whose prices in 1938 were lower than what they were in 1929 to the extent of a fraction of 1 percent up to 3 percent. The prices of the great majority of these implements were higher at the end of the period than at the beginning. The prices of some of these articles in 1938 exceeded their prices in 1929 only by small margins ranging from a fractional part of 1 percent to 2 percent. The prices of many of these articles in 1938, however, ranged from 7 to 20 percent above what they were in 1929; and there were articles of farm equipment whose prices in 1938 were from 28 to 39 percent above what they were in the beginning of the period.

PRICE REDUCTIONS FOR AGRICULTURAL IMPLEMENTS FOLLOWING THE PUBLICATION OF THE COMMISSION'S REPORT

The Commission's report was sent to Congress on June 6, 1938, and International Harvester Co. announced reductions ranging from \$75 to \$245 in the prices of certain tractors, effective June 27, 1938; and on October 4 and November 1, 1938, price reductions ranging from 2.6 percent on an ensilage cutter, to 18.2 percent on a harvester thresher, were announced. Price reductions were made on plows, harrows, cultivators, cream separators, manure spreaders, mowers, grain binders, corn planters, feed grinders, hay presses, tractors, and harvester threshers. Deere & Co. reduced the prices of certain of its combines in the fall of 1939, and other manufacturers announced lower prices for certain implements in late 1939.



PART III

**REPORT ON MOTOR VEHICLE INDUSTRY
INQUIRY**



MEMORANDUM CONCERNING INDICATIONS OF COMPLIANCE ON THE PART OF LARGE MANUFACTURERS IN THE MOTOR VEHICLE INDUSTRY WITH RECOMMENDATIONS MADE BY THE FEDERAL TRADE COMMISSION IN AN EFFORT TO ELIMINATE UNDESIRABLE TRADE PRACTICES WITH RESULTING BENEFITS TO THE PUBLIC

The Commission's inquiry into the motor vehicle industry was made pursuant to a joint congressional resolution. The resolution directing the inquiry was signed by the President April 13, 1938, and the report was submitted to the Congress June 5, 1939. In this inquiry, as in others made by the Commission, it was found that many of the conditions complained of by the parties who had urged the Congress to order the inquiry, either were not imposed, or were less prevalent, during its progress. The Commission found that during the year 1938 many of the practices of motor vehicle manufacturers, alleged by the dealers to be "coercive" or "oppressive," were either greatly ameliorated or entirely abandoned by certain large companies during the progress of the inquiry.¹ It was also found that the 1939 manufacturer-dealer contracts, entered into in the fall of 1938, was more liberal than the contracts entered into just prior to the inquiry.

CONCLUSIONS OF THE COMMISSION

The conclusions of the Commission were as follows: ²

The main features of this report that directly affect the conclusions and recommendations that may be of public interest concern three branches of economic activity and their relations to each other, namely, the motor-vehicle manufacturers, the motor-vehicle dealers, and the companies financing the purchase of motor vehicles on installment payments. The conclusions to be considered in this connection relate especially to the competitive conditions and the extent of, or trends toward, concentration, and any abuses prevailing in these fields in the nature of unfair methods of competition or unfair or deceptive acts or practices.

CONCENTRATION IN THE MOTOR-VEHICLE INDUSTRY

The Commission finds that a high degree of concentration prevails in the motor-vehicle industry, there being in 1938 only 11 companies (or company groups) producing passenger cars regularly, and 3 of them had no less than 89 percent of the total unit sales of passenger cars; that among these 3 leading motor-vehicle manufacturers there prevails, apparently, a condition of active competition.

The Commission finds that in the early stages of the industry, when there were many small motor-vehicle manufacturers, the General Motors Corporation had an advantage resulting from the acquisition and combination of several of the leading companies making distinct lines of motor vehicles, some of which included two or more types of cars of different price classes; and that the company, now known as the Chrysler Corporation, to a less extent obtained a similar

¹ See Federal Trade Commission, Report on Motor Vehicle Industry, pp. 183, 194, 198, 202, 203, 204, 205, 206, 262, etc.

² Ibid. 1073 et. seq.

advantage through the purchase of the Dodge line, but it was also greatly aided by its development of the Chrysler and Plymouth cars.

On the other hand, the Ford Motor Co. development was characterized, substantially, by a concentration of its efforts on developing a single line of very low-priced motor vehicles, which for a time put it in the forefront of the industry in unit production.

COMPETITION IN PRODUCTION AND PRICES

There is strong competition for business in the automobile industry both among manufacturers and retail dealers. Price competition in motor vehicles, however, is naturally different from that in commodities that are of the same, or standardized, description and quality for producers generally. The constant effort of a motor-vehicle manufacturer is to emphasize the superiority of his car and the special features it has as a justification for this claim. The retail prices of motor vehicles are widely advertised by the manufacturers, and the dealers are expected generally to conform to them, except in connection with allowances for trade-ins. In some instances, however, where a low-priced car, for example, of one manufacturer has been reduced, a competing manufacturer has made a corresponding reduction for his car in the same price class; price reductions on current models are sometimes made, also, for the higher-priced cars, just before the annual change to new models.

Competition of manufacturers with respect to passenger cars in the low-price class is more in volume than in prices, though prices are potentially important.

With reference to any question of price fixing in other price classes, the nature of the demand is such, and consumer preference such a vital element of demand, that it would be difficult not only to fix prices but also to establish any quota system of production, even if the retail dealers could be brought into effective cooperation for that purpose.

Policies with respect to exclusive handling of the product of a particular manufacturer by a dealer having a dealership agreement with him tend to restrict competition by making it more difficult for the smaller manufacturers to obtain adequate dealer representation, because in many markets they are unable to establish exclusive dealerships with sufficient volume to operate profitably. Such restriction of competition perpetuates the high degree of concentration already existing in the hands of the three large manufacturers.

Active competition among automobile manufacturers, although some of them have made very large profits, gave to the public improved products, often at substantially reduced prices. In the automobile industry this has been especially true of those manufacturers who are able to obtain large volume of production through competitive improvement in motor-vehicle construction, style, performance, and safety, particularly in the low-priced class. Such competition has been the basis for the remarkable growth of the industry.

Consumer benefits from competition in the automobile-manufacturing industry have probably been more substantial than in any other large industry studied by the Commission.

COMPETITION AMONG MOTOR-VEHICLE DEALERS

The Commission finds that the retail motor-vehicle trade is competitive in the sense that the individual dealer generally pushes actively the sale of the particular make of motor vehicles which he is under contract to sell, and that the prices thereof, as advertised by the motor-vehicle manufacturer, though quite generally adhered to in appearance, are frequently cut by allowances for used cars quite generally traded in as part payment for new cars. These allowances are sometimes excessive in the sense that, when reconditioned and sold, the prices obtained for them are substantially below such allowances. In a number of instances the Commission found evidence of local combinations among motor-vehicle dealers to prevent competition regarding such allowances made on used cars traded in.

"PADDING" NEW- AND USED-CAR PRICES

It is also concluded from the study that the practices of dealers of "padding" new car prices and "padding" finance charges falls most heavily on the minority of automobile buyers who have no used cars to trade. The majority of car buyers who have cars to trade also suffer in case the amount of consumer price enhancement is greater than the overall allowance made by dealers.

DEALER PRICE FIXING ACTIVITIES

The Commission finds that local associations of motor-vehicle dealers in various parts of the country have engaged in the following practices to fix or maintain prices: (1) Fixing minimum prices on new cars, often by means of uniform maximum discounts from the manufacturer resale prices in transactions where no trade-ins are involved; (2) establishing maximum purchase prices, or allowances, for used cars taken in trade; (3) regulating bidding on used cars taken in trade by means of uniform minimum increases on all bids subsequent to the original bid, or by requiring all bids subsequent to the original bids to be less than the original bid; and (4) adopting published used-car price guides as a basis for maximum allowances for used cars.

The Commission found that in certain instances, and in varying degrees, General Motors Corporation and Ford Motor Co., or representatives of these companies, cooperated with dealers in the formulation or operation of dealer plans to fix retail prices and limit dealer competition. Ford Motor Co., however, in its 1939 dealer agreements, requires its dealers—

to avoid in every way such trade practices in connection with dealer's competition with other Ford dealers and in selling company products to the public as are injurious to company's good name and goodwill or are detrimental to public interest.

LEGAL ASPECTS OF USED-CAR VALUATION OR APPRAISAL BUREAUS

The Commission found that many local associations operate used-car valuation or appraisal bureaus that are essentially combinations of dealers in particular localities who are bound by agreements to restrict competition in used-car trading. A plan in effect in a large city in 1938 entirely eliminated competitive bidding if the prospective buyer obtained his first bid on his used car from the dealer in whose zone, or trading area, he resided.

The question as to whether Federal jurisdiction exists respecting such local association activities depends upon whether interstate commerce is involved. In complaints before the Commission in which cooperation with local combinations of dealers to control used-car trade-in allowances was a factor, upon investigation it was found that interstate commerce was not involved to a sufficiently substantial extent to establish jurisdictional requisites. Consequently, cases have either been closed subject to the Commission's right to reopen them, or dismissed without prejudice. In general, therefore, the regulation of the activities of such local combinations of dealers becomes a matter to be handled by the law-enforcement agencies of the various States, acting under their respective State laws, the terms of which vary greatly among the approximately 40 States that have enacted State antitrust acts.

UNFAIR METHODS OF MOTOR-VEHICLE MANUFACTURERS IN THEIR RELATIONS WITH THEIR DEALERS

The Commission finds that motor-vehicle manufacturers, and, by reason of their great power, especially General Motors Corporation, Chrysler Corporation, and Ford Motor Co., have been, and still are, imposing on their respective dealers unfair and inequitable conditions of trade, by requiring such dealers to accept, and operate under, agreements that inadequately define the rights and obligations of the parties and are, moreover, objectionable in respect to defect of mutuality; that some dealers, in fact, report that they have been subjected to rigid inspections of premises and accounts, and to arbitrary requirements by their respective motor-vehicle manufacturers to accept for resale quantities of motor vehicles or other goods, deemed excessive by the dealer, or to make investments in operating plants or equipment without adequate guaranty as to term of agreement or even supply of merchandise; and that adequate provisions are not included for an equitable method of liquidation of such investments, sometimes made at the insistence of the respective motor-vehicle manufacturer.

MANUFACTURERS' TREATMENT OF DEALERS

In the opinion of the Commission this inquiry has demonstrated that inequities exist in the terms of dealer agreements, and in certain manufacturers' treatment of some dealers, calling for remedial action.

It is recommended that present unfair practices be abated to the end that dealers have (a) less restriction upon the management of their own enterprises, (b) quota requirements and shipments of cars based upon mutual agreement, (c) equitable liquidation in the event of contract termination by the manufacturer, (d) contracts definite as to the mutual rights and obligations of the manufacturers and the dealers including specific provision that the contract will be continued for a definite term unless terminated by breach of reasonable conditions recited therein.

ABUSES OF INSTALLMENT FINANCING

The Commission finds that, in the methods employed by some of the companies engaged in financing the purchaser of a new motor vehicle, serious abuses have developed not only in permitting dealers to impose exorbitant charges but also in serious deception, or even direct fraudulation, of the purchaser.

In the more general practice by the larger companies the principal objection was that, in the original advertising of the so-called 6-percent plan, it was not made clear that the finance-charge rates were not interest rates and that the interest rates implied in the charges were nearly twice as much as 6 percent per annum on the money borrowed. However, the application of this plan constituted a substantial reduction from the rates of finance charge and interest that were in general use just previously.

The more serious deceptions have been engaged in generally by the dealer, often in connivance with a finance company. The practices here referred to relate to the so-called "picks" (padding), which are additions made, for no extra service, by the dealer to the regular finance charges provided in the finance-company's minimum-rate chart; and certain finance companies provided their dealers with the instrumentalities for such deceptions by furnishing them with two or more rate charts based on different rates of charge.

The Commission found, among the 30 finance companies examined, 1 finance company that systematically failed to afford car purchasers a portion of the insurance protection for which they were charged.

ITEMIZED INVOICE NEEDED FOR CONSUMER PROTECTION

In order that the automobile purchaser may be protected against overcharges, there is need of regulation requiring retail automobile dealers to furnish each retail purchaser with an itemized invoice showing in detail the components of the cash sale price—stating separately the charges for accessories, Federal excise tax, State or local sales tax, transportation, advertising, "handling charges," service, motor-vehicle license, motor-vehicle title registration, and each other charge included in the cash sale price of the vehicle as delivered—and the components of charges added to the cash sale price by reason of the fact that the vehicle is sold on time—the amount and components of the retail insurance premium and the extent of the coverage to be provided for each component, the amounts respectively charged for recording fee, notary fee, and documentary stamp tax, and the amount of the finance charge.

DECEPTION IN CHARGES FOR TRANSPORTATION OF MOTOR VEHICLES

The frequent practice of either motor-vehicle manufacturers or dealers of adding to the factory price a transportation charge to a certain point of delivery based on the published railroad rate, but which is greater than that actually incurred by the manufacturer or dealer, because of differing methods of transportation and delivery, is, in the opinion of the Commission, an unjustifiable imposition upon the purchasers of such vehicles, which should be eliminated.

SALE OF DRIVEN CARS AS NEW CARS

The practice of some retail dealers in selling as new cars those which have been towed or driven from the factory or used as demonstrators, unless the full facts, including the miles driven, are disclosed to the purchaser, is deceptive and unfair and should be eliminated.

VOLUNTARY IMPROVEMENTS MADE BY THE MANUFACTURERS

There have been a number of important improvements, voluntarily made by manufacturers, since the publication of the Commission's report, in the relations between motor vehicle manufacturers and the

consumer and in the contractual relationship between manufacturers and their dealers.

One of the earliest important reforms was that of protecting the automobile buyer against "padding" new car prices and "packing" finance charges in installment sales. As a means of protecting the buyer against these overcharges the Commission had informed the Congress that³—

* * * there is need of regulation requiring retail automobile dealers to furnish each retail purchaser with an itemized invoice showing in detail the components of the cash sale price—stating separately the charges for accessories, Federal excise tax, State or local sales tax, transportation, advertising, "handling charges," service, motor-vehicle license, motor-vehicle title registration, and each other charge included in the cash sale price of the vehicle as delivered—and the components of charges added to the cash sale price by reason of the fact that the vehicle is sold on time—the amount and components of the retail insurance premium and the extent of the coverage to be provided for each component, the amounts respectively charged for recording fee, notary fee, and documentary stamp tax, and the amount of the finance charge.

This vital reform, for protection of the consumer, was announced voluntarily by General Motors Corporation in an addendum to its 1939 manufacturer-dealer contract applicable to the 1940 General Motors models: With regard to "the 1940 program," Alfred P. Sloan, Jr., chairman of the General Motors Corporation, in "A Message to General Motors Dealers,"⁴ dated February 1940, stated in part:

Supporting this program there are certain obligations assumed by the dealer, such as displaying in his showrooms the prices he charges, the furnishing of an itemized invoice covering such sales as he makes, and making it possible for any purchaser to buy a standard car, as advertised, without optional equipment or accessories unless desired.

In a series of national advertising, featuring "A Declaration of Merchandising Principles," and "being published in newspapers in many cities throughout the country and signed by General Motors dealers, in the interests of sound business methods and the better information of the public," after describing their plan "plain view" price tags, General Motors advertising stated:⁵

We mark every car on display with the GM "plain view" price tag illustrated, which shows each and every item that goes into our final delivered price.

We include as "extras" in our prices only such extra equipment or accessories as you may elect to buy.

We display the same information on wall charts in our showrooms, and provide you after purchase with an itemized invoice showing you exactly what every penny of your money buys.

We observe the foregoing principles because we believe our customers appreciate out-in-the-open dealing.

We could, of course, operate on a different basis.

For example, we could inflate a total retail delivered price in any one of a dozen ways.

That might give us more profit per car, but it would give you less value, and in the long run would cut our volume down.

Or, we might offer you as an inducement more for your used car than it is actually worth in the market.

We could offset that over-allowance by adding what is called a "pack" to the price, quoting our price on the new car only after hearing what you want for your used one.

Or in a total un-itemized price we might include equipment or accessories that you don't really want, but would be charged for.

³ Federal Trade Commission Report on Motor Vehicle Industry, p. 1077.

⁴ P. 7.

⁵ See Saturday Evening Post, January 20, 1940, p. 43.

Or we might "build up" the finance charges, if you buy the car on time, to cover other seeming concessions allowed you.

But we don't do these things. We don't believe in them. We think they have no place in the right kind of transaction. They are deadly enemies to confidence and durable success.

Under date of September 29, 1939, Alfred P. Sloan, Jr., chairman of General Motors Corporation in "A Message to General Motors Dealers,"⁶ stated in part:

General Motors proposes to ask its dealers to cooperate with it and do a job of eliminating certain undesirable practices. And here is how we believe we should go about it. The attack is to be made on two fronts. One is just as important as the other. We ask our dealers to whole-heartedly accept the formula which the industry has developed in cooperation with the Federal Trade Commission, establishing the mark-up between the factory-delivered prices and the consumer prices, on a community basis as the maximum price they will charge the consumer. Otherwise there are no restrictions on price. We believe that this is thoroughly in harmony with the public interests and in no way contrary to the principle of a competitive economy. Further, we ask our dealers to make plain to the public, in various ways, the price they propose to charge. We ask that on every sale a plain readable invoice of the terms of the sale involving the various items, clearly stating the prices on each item, including the finance terms, if any, be given to each purchaser. These points have been especially recommended by the Federal Trade Commission for adoption.

In discussing the "serious abuses" that had developed in the financing of motor vehicles purchased on time payments, Alfred P. Sloan, chairman of General Motors Corporation, stated, in part, under date of September 29, 1939:⁷

During recent months I have received many communications from within each of the groups mentioned, reflecting an increasingly critical attitude as to certain practices of the industry, such as "packing" consumer prices, taking in used cars at increasing prices and "packing" of finance charges. The number of complaints from the industry's final judge—the consumer—is increasing. The exposure of "packed" finance charges has reached the point, in some sections, where the consumer, not being in a position to determine the facts, is placing his business through banks rather than through the dealers. Dealers' organizations are themselves attacking the problem from the standpoint of self-defense.

In a later pamphlet entitled "A Message to General Motors Dealers," dated February 27, 1940, Mr. Sloan in dealing with "Comments on the Federal Trade Commission's Report on the Motor Vehicle Industry,"⁸ stated:

The Commission finds that in the methods employed by some of the companies engaged in financing the consumer, serious abuses have developed, not only in permitting dealers to impose exorbitant charges, but also in serious deception, or even direct defraudation of the purchaser.

General Motors does not believe in such practices. They cannot be too forcefully condemned. The General Motors Acceptance Corporation's policy is to maintain at all times either as low or a lower consumer rate than is available elsewhere, with the same rate to everybody, everywhere. It will not be a party to "packing."

ABUSES IN FINANCE CHARGES

It was also found that consumers were being overcharged through abuses which had developed in new car financing. In its conclusions, the Commission stated:⁹

The Commission finds that in the methods employed by some of the companies engaged in financing the purchaser of a new motor vehicle, serious abuses have

⁶ Pp. 13-14.

⁷ A Message to General Motors Dealers, The 1940 Program, pp. 5-6.

⁸ P. 23.

⁹ Federal Trade Commission, Report on Motor Vehicles Industry, p. 1076.

developed, not only in permitting dealers to impose exorbitant charges but also in serious deception, or even direct defraudation, of the purchaser.

In the more general practice by the larger companies, the principal objection was that, in the original advertising of the so-called 6-percent plan, it was not made clear that the finance-charge rates were not interest rates and that the interest rates implied in the charges were nearly twice as much as 6 percent per annum on the money borrowed. However, the application of this plan constituted a substantial reduction from the rates of finance charge and interest that were in general use just previously.

The more serious deceptions have been engaged in generally by the dealer, often in connivance with a finance company. The practices here referred to relate to the so-called "packs" (padding), which are additions made, for no extra service, by the dealer to the regular finance charges provided in the finance-company's minimum-rate chart; and certain finance companies provided their dealers with the instrumentalities for such deceptions by furnishing them with two or more rate charts based on different rates of charge.

The Commission found, among the 30 finance companies examined, 1 finance company that systematically failed to afford car purchasers a portion of the insurance protection for which they were charged.

GREATER ACCURACY IN PRICE ADVERTISING

For years it was the general practice of manufacturers to illustrate their advertisements and to display at automobile shows models carrying price tags which named prices much lower than the price of the car as equipped could be purchased.¹⁰ In the national advertising of their 1940 models, motor vehicle manufacturers, generally, named the price for the model illustrated and called attention to the fact that certain equipment carried an extra price. For example, in the February 24, 1940, *Saturday Evening Post*¹¹ the Chevrolet Special DeLuxe Sport was illustrated at \$802 with the note:

* * * Flint, Mich.: Transportation based on rail rates, State and local (if any), optional equipment and accessories—extra. Prices subject to change without notice. Bumper guards—extra, on Master 85 series.

Chrysler Corporation, in the same issue of the *Saturday Evening Post*,¹² printed the following footnote on the price of \$1,025 for its 6-passenger Windsor sedan:

Federal tax included. Transportation and State or local taxes extra. Dual horns and cigar lighter extra.

In the same issue, Studebaker Corporation's advertisement stated:

Illustrated above: 1940 Studebaker Champion Club sedan \$700 delivered at factory.

MANUFACTURER DEALER CONTRACTS

In the conclusions in its motor vehicle report,¹³ the Commission stated:

In the opinion of the Commission, this inquiry has demonstrated that inequities exist in the terms of dealer agreements, and in certain manufacturers' treatment of some dealers, calling for remedial action.

It was found during the inquiry that certain influential officials of the larger motor vehicle manufacturing companies had recognized the fact that inequities sometimes occurred in the cancelation of dealers

¹⁰ Federal Trade Commission, Report on Motor Vehicles, pp. 266 and 276.

¹¹ P. 37.

¹² P. 38.

¹³ P. 1076.

which was the subject of complaint of many dealers. The Commission's reports ¹⁴ stated:

Alfred P. Sloan, Jr., chairman of General Motors Corporation, in general sales committee meetings as early as July 1925 indicated he was cognizant of the evils of cancelation of dealers without sufficient reason or cause, and in a recent address to a group of automobile dealers publicly recognized the problem and the obligation in the following language:

"I might mention the practice of the industry of providing for the cancelation of its selling contracts, without notice, and without cause, on the part of either party. I have been giving much thought to this point. It cannot be denied that in by far the great majority of our relationships the question is never raised, yet when such circumstances develop it is important to the individual concerned. Important progress has been made by the manufacturer toward accepting definite obligations in the way of liquidating the dealer's operating assets and in participating in any losses that might occur incident to obligations more or less fixed. But entirely aside from all this, perhaps cancelation without cause is subject to criticism from the standpoint of the general equities involved. I am inclined to think it is. Therefore, perhaps we should consider a somewhat different relationship. This subject should be further explored."

In the interim of 13 years, only superficial remedies had been applied and dealers were still being canceled at will.

Some important changes have been made since the Commission's report was sent to the Congress. In fact, it was found that during the inquiry changes were made as shown by the Commission's study of the 1938 and 1939 manufacturer-dealer agreements. The Commission's report states:¹⁵

The discussion of the manufacturer-dealer agreement presented in the preceding chapter has indicated the general form of the contracts or agreements in effect during 1938 and 1939. This review indicates that with respect to one point covered by Mr. Benson, namely, the period of notice required in case of cancelation there has been a general change in terms providing for a definite period of notice by the manufacturer in case of cancelation. In certain other respects, also, the 1939 contracts of several manufacturers have been modified, generally along the line of writing into them provisions desired by dealers, particularly with respect to protection of their territories against cross selling and the provision of penalties in case cross sales occur. Some also have added to their agreement, or made more definite provisions already in them respecting repurchase of stocks of new cars and parts. In general, however, the agreements for 1939, although they have, in some instances, been extensively rewritten and rearranged, still contain within their provisions much the same basis for the exertion of large power over retailers by manufacturers and their local representatives complained of in the above quotation. For 1939 the contracts have been liberalized in some respects by writing into them certain provisions which the dealers desired but without materially changing provisions intended to safeguard the interests of manufacturers. Therefore, both the terms of the 1939 agreements and the fact that the two parties entering into it have widely differing bargaining power serve as the basis for the exertion of pressure by manufacturers upon dealers.

The Commission's report, ¹⁶ also, called attention to the fact that—

Some of the smaller manufacturers have recently featured claims of "friendliness" and "fairness" as characterizing their attitude toward their dealers and have cited changes in their 1939 contracts as indicating a "better deal for dealers" under which "dealers of independence" are given an opportunity to successfully build their businesses on a "permanent" basis without "intrusive" factory interference.

Since the publication of the Commission's report, other changes were incorporated in the 1940 manufacturer-dealer agreements by certain companies. In "A Message to General Motors Dealers," ¹⁷

¹⁴ P. 146.

¹⁵ Pp. 147-148.

¹⁶ Pp. 1068-1069.

¹⁷ Pp. 9-10.

dated February 27, 1940, dealing with the 1940 contract, Alfred P. Sloan, Jr., chairman of General Motors Corporation, stated:

The relationships between the manufacturer and the dealer and their responsibilities, jointly and severally, as to the consumer have always been subject to considerable discussion within the automotive industry. This should be so because intelligent discussion promotes progress. During the past few months this discussion has been accelerated by a report of the Federal Trade Commission on the practices of the automotive industry—dealing with the manufacturer and the dealer, as well as with the policies of finance companies.

It is highly desirable that every opportunity be capitalized to further the interests of the industry in advancing its operating technique through the elimination of bad practices, as well as in the adoption of policies that serve to protect adequately the rights and equities of any and all parties involved. This does not mean that every suggestion should be adopted, but it does mean that every constructive suggestion should be examined aggressively and without prejudice, and adopted or rejected in whole or in part depending upon whether, fairly considered, it may be expected to raise the industry's operations to a higher standard of justice and intelligence. Only by so doing may the industry expect to continue to merit and retain the high regard in which it is now held by the public.

With respect to the Commission's conclusion that ¹⁸—

The practice of some retail dealers in selling as new cars those which have been towed or driven from the factory or used as demonstrators, unless the full facts, including the miles driven, are disclosed to the purchaser, is deceptive and unfair and should be eliminated.

With respect to this practice, Mr. Sloan stated, in "A Message to General Motors Dealers," ¹⁹ dated February 27, 1940:

General Motors assumes the responsibility of delivering its cars to the dealer's point. In so doing it uses only accredited transportation agencies and will not permit the towing of cars or the driving of them. Further, such transportation agencies as are used are required to comply with all Federal and State regulations.

It appears that, while not all of the suggestions of the Commission with respect to improvement of trade practices within the motor vehicle industry have been put into effect by the manufacturers, a substantial proportion of them have been. This appears to be particularly true with respect to the suggestion made for the protection of the consumer, especially those covering itemized invoices, and the elimination of "packs" in finance charges.

¹⁸ P. 1077.

¹⁹ P. 22.



INDEX

AGRICULTURAL IMPLEMENT AND MACHINE INDUSTRY:

"Big Eight":	Page
Comprises the specified companies listed in table 2.....	241
Profit and loss reference.....	236
Census statistics began in 1849.....	225
Concentration of industry.....	227-228
Consolidations, era of 1902-37.....	227-228
Decentralization of factories.....	228
Federal Trade Commission inquiry of 1938; extracts and indications of compliance of manufacturers with recommendations of Commission.....	250-257
Federal Trade Commission report on the agricultural implement and machine inquiry, 1939.....	223-257
Investigations by Federal agencies, 1913-38.....	225
Labor conditions—unions, hours and wages.....	228
Manufacturers and establishments, number of, by kind of product, 1926, 1936, 1937; table 1.....	239-240
Monopolistic condition, evidences of.....	238
Price leadership vested in International Harvester Co. and Deere & Co.....	233
Prices:	
Deere & Co. price comparison of 1938 and 1939 dealer prices for combines; table 6.....	249
International Harvester Co. price comparisons, 1938 and 1939; table 5.....	248
Production of representative farm implements or machines manufactured by the eight full or long line manufacturers, number and percent, 1921, 1929, 1935-37; table 4.....	246-247
Profits in the industry average 1927-36.....	236
Retail sales system.....	230
Sales:	
International Harvester Co., proportion of each of representative implements sold, 1902-37; table 3.....	245
Percentages of total number of representative implements sold for use in United States, 1921, 1929, 1935, 1936, number and value, 1937, for specified companies; table 2.....	241-244
Trade associations.....	231-232
Wholesale distribution system, branch houses of large companies, "blockmen".....	229
AMERICAN FUEL & POWER CO.: Opposition of dominant interests to Company.....	74-77
AUTOMOTIVE INDUSTRY:	
Concentration, Federal Trade Commission report, 1939.....	261
Competition, production, prices, and retail trade, Federal Trade Commission report, 1939, conclusions; text.....	262
Federal Trade Commission motor vehicle inquiry, 1939; report on inquiry, with text of conclusions.....	259-269
Financing company abuses; Federal Trade Commission inquiry, 1939; extract.....	266-267
Prices:	
Padding and packing reform inaugurated by General Motors Corporation applicable to 1940 program.....	265
"Padding" new and used car prices, "packing" finance charges, price fixing by dealers; Federal Trade Commission, report 1939; conclusions; text.....	262-264

	Page
BLOCKMEN: Defined.....	229
BUREAU OF MINES: Minerals Yearbook, 1939; cited (n.) and extract.....	36
CASE, J. I., Co.: Branches in United States, number, 1937.....	229
CITIES ALLIANCE, DETROIT, MICH.: The natural gas monopoly (1936); text.....	107-208
CITIES SERVICE CO.: Natural gas pipe line mileage.....	11
CITY GATE PRICES: Defined.....	38
COLORADO INTERSTATE GAS CO.: History and operations of company.....	48-49
COLUMBIA GAS & ELECTRIC CO.: Intercorporate relationships, Columbia Oil & Gasoline Corporation; percentage voting stock interest in Panhandle Eastern Pipe Line Co.....	27
Natural gas pipe line mileage.....	11
COMPETITION: Automotive industry, production, prices, and retail dealers; Federal Trade Commission report 1939, conclusions; text.....	262
CONCENTRATION OF CONTROL: Natural gas pipe lines, operating data pertaining to 11 systems con- trolled by Columbia Gas & Electric Corporation, Standard Oil Co. (New Jersey), Cities Service Co., and Electric Bond & Share Co....	104-105
CONCENTRATION OF PRODUCTION: Agricultural implement and machine industry.....	227-228
Automotive industry, Federal Trade Commission report, 1939.....	261
CONNECTING GAS CO.: History and operations of Co.....	53-54
CREVELING, J. D.: Brief history of the natural gas industry (1935); extracts.....	85-87
DEERE & CO.: Branches in United States and Canada, number, 1936.....	229
Price comparison of 1938 and 1939 dealer prices for combines; table 6...	249
Price leadership in agricultural implement and machine industry shared with International Harvester Co.....	233
ELECTRIC BOND & SHARE CO.: Intercorporate relationships, stockholding percentages in Electric Power & Light Corporation and United Gas Corporation.....	27
Natural gas pipe line mileage.....	11
FARM EQUIPMENT INSTITUTE: Activities and publications.....	231
FARMER'S DOLLAR: Proportion of cost to farmer for certain imple- ments and machines.....	236-237
FEDERAL POWER COMMISSION: Cases docketed with Commission under Natural Gas Act: Docket G-100-G-129.....	222
Docket G-106 and G-110.....	12
Docket G-115.....	222
Decisions under the Natural Gas Act, <i>City of Cleveland v. East Ohio Gas Co.</i>	222
Natural Gas Act of June 21, 1938 (52 Stat. 821), "Lea-Brown Act," administered by Commission.....	10, 12, 31-32
Release February 15, 1939, Colorado-Wyoming Gas Co. petition for natural gas rate adjustment; text.....	106
FEDERAL TRADE COMMISSION: Agricultural implement and machine industry inquiry, 1938: Extracts and indications of compliance of manufacturers with recommendations of Commission.....	250-257
Report on.....	223-257
Agricultural implement and machine industry investigations, 1918-38.....	225
Motor-vehicle-industry inquiry, 1939, Report on inquiry; with text of conclusions.....	259-269
Natural gas and natural-gas pipe lines in the United States; report, 1939.....	1-222
Natural-gas inquiry of 1934-35, and final report of 1935; reference...	3, 5
FULL LINE FORCING: Defined.....	230
GAS FUEL INDUSTRY: Status: population served, number of custom- ers, sales (M cubic feet), natural gas and manufactured gas, by States, as of December 31, 1936.....	211-212

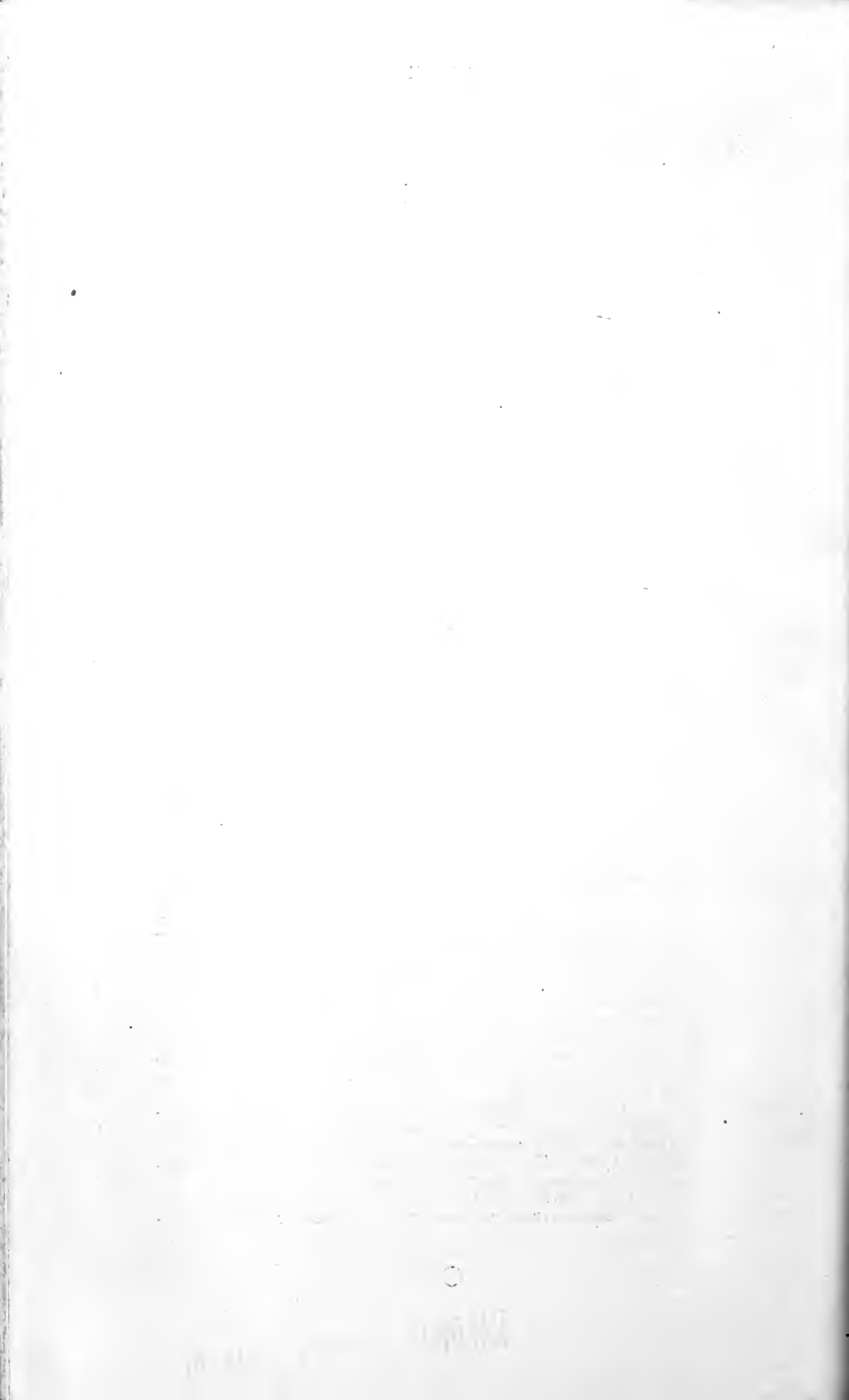
	Page
GENERAL MOTORS CORPORATION: Chairman, Alfred P. Sloan, Jr.: Message to General Motors dealers, September 29, 1939, and February 27, 1940; extracts.....	265-266, 269
Padding and packing prices reform inaugurated by Corp. applicable to 1940 program.....	265
HARVESTER CASE (274 U. S. 693, 708 (1927)).....	237
INTERCORPORATE RELATIONSHIPS: Natural-gas industry.....	27-28
INTERNATIONAL HARVESTER CO.: Branch and transfer houses, sales and service stations, and company and retail stores, number operated by, 1937.....	229
Litigation: <i>U. S. v. International Harvester Co.</i> (274 U. S. 693, 708 (1927)).....	237
Motives for organization of.....	227
Price comparisons, 1938 and 1939; table 5.....	248
Price leadership in agricultural implement and machine industry shared with Deere & Co.....	233
Sales: Proportion of each of representative implements sold by Co., 1902-37; table 3.....	245
KANSAS CITY GAS CO.: Natural-gas cost and sales price spread, 1931.....	42
LEA-BROWN ACT. (<i>See</i> Natural Gas Industry, Legislation.)	
LEY, HENRY A.: Geology of natural gas (1935); cited (n.).....	21, 82
LONE STAR GAS CORPORATION: History and operations of company.....	49-50
Intercorporate relationships: Northern Natural Gas Co.....	28
MISSISSIPPI RIVER FUEL CO.: History and operations of company.....	50-51
MORGAN, J. P.: Companies affiliated with Morgan interests, total outstanding shares, principal stockholders' shares and percent of voting stock held.....	92-94
Electric energy production, kilowatt-hours, by companies controlled by or affiliated with the Morgan interests, by companies, 1934 and 1938.....	213
Intercorporate holdings of voting stock by Rockefeller and Morgan interests in natural gas industry as of January 1, 1939, percent; chart and tables.....	facing p. 89, 91, 94
Natural gas companies controlled by Morgan interests, production and purchases of natural gas, trunk pipe line mileage, natural gas transported across State lines, 1934.....	100
Stock held by Morgan and connected interests in electric power and oil companies, also engaged in natural gas industries, as of January 1, 1939; percents.....	91
Stock held by Morgan interests in natural gas companies as of January 1, 1939.....	92
NATIONAL FEDERATION OF IMPLEMENT DEALERS: Membership and activities.....	231
NATURAL GAS INDUSTRY: Acquisition methods: Annual lease payment.....	36-37
Use and sale.....	33-34
Competitive position with: Bituminous coal.....	15
Other fuels.....	12-13
Contracts, royalty contracts or Form 88 lease.....	70
Federal Trade Commission report on natural gas and natural gas pipe lines in the United States.....	1-222
Financial groups, influence of in industry.....	22-26
Historical outline; with extracts from J. D. Creveling's "Brief history of the natural gas industry" (1935).....	85-89
Intercorporate relationships.....	27-28
Intercorporate holdings of voting stock by Rockefeller and Morgan interests in natural gas industry as of January 1, 1939, percents; chart and tables.....	facing p. 89, 91, 94
Morgan interests, percent of voting stock held in electric power and oil companies engaged in natural gas industries as of January 1, 1939.....	91
Morgan interests, percents of voting stock held in natural gas companies as of January 1, 1939.....	92

NATURAL GAS INDUSTRY—Continued.

Intercorporate relationships—Continued.	Page
Rockefeller interests, percents of voting stock held in natural-gas companies as of January 1, 1939.....	91
Rockefeller interests, shares and percent of voting stock held in oil companies engaged in natural-gas industries as of January 1, 1939.....	90
Legislation: 1938, June 21. Natural Gas Act (Lea-Brown Act), administered by Federal Power Commission.....	10, 12
Marketing; producers' efforts to obtain outlets and markets; case of W. M. McKnab and the Hugoton, Kans., field.....	69
Monopolistic acts and practices.....	57-68, 83
Cincinnati, Ohio, situation.....	66-67
Colorado Springs, Colo., situation.....	67-68
Detroit, Mich., situation.....	31, 64-66
Fulton, Mo., situation.....	63-64
"Natural gas monopoly," published by Cities Alliance, Detroit, Mich. (1936); text.....	107-208
St. Louis, Mo., situation.....	59-63
Nonraiding policy.....	30
Pipe lines:	
Concentration of mileage control as of December 1935.....	11-12
Control of pipe lines and gas supply east of the Rockies.....	29-30
Detroit situation.....	31, 64-66
Engineering and economic problems.....	17-19
Expansion of service, 1891-1937.....	8-9
Interstate industry first classed as a utility under Natural Gas Act of 1938.....	12, 31
Map showing principal natural-gas pipe line systems in the United States.....	facing p. 89
Moody-Seagraves projects.....	74
Morgan interests and connected companies, mileage of trunk lines, by companies, and natural gas transported across State lines M cubic feet, 1934.....	100
Nonraiding policy.....	30
Nonraiding policy recognized in Natural Gas Pipe Line Co. of America, contract of March 10, 1930.....	31
Operating data pertaining to 11 systems controlled by Columbia Gas & Electric Corporation, Standard Oil Co. (New Jersey), Cities Service Co., and Electric Bond & Share Co.....	104-105
Opposition of dominant interests to independent lines.....	71-79
Profits, sources of data.....	44
Regulation by Federal Power Commission under Natural Gas Act of June 21, 1938 (52 Stat. 821); "Lea-Brown Act".....	10, 12, 222
Richest market for natural gas awaits pipe line builders. By H. Stanley Norman; text.....	209-213
Rockefeller interests and connected companies, mileage, by companies, and M cubic feet natural gas transported across State lines, 1934.....	99
Trunk pipe lines "bottlenecks of resources and industry".....	7
Price spreads:	
Average or class price spreads as indicators of control.....	56-68
City gate versus ultimate consumer price spread.....	41-44
Comparative prices paid and received by pipe line companies, 1934.....	101-103
Prices:	
City gate.....	38
Colorado-Wyoming Gas Co.'s petition for rate adjustment; Federal Power Commission release, February 15, 1939; text.....	106
Contract prices for deliveries from pipe lines, Chicago, Washington, D. C., St. Louis, and Detroit situation; comment and table 2.....	39-41
Well versus field prices.....	14, 35-36
Production:	
Morgan interests and connected companies (M cubic feet and percent total), by companies, 1934.....	100

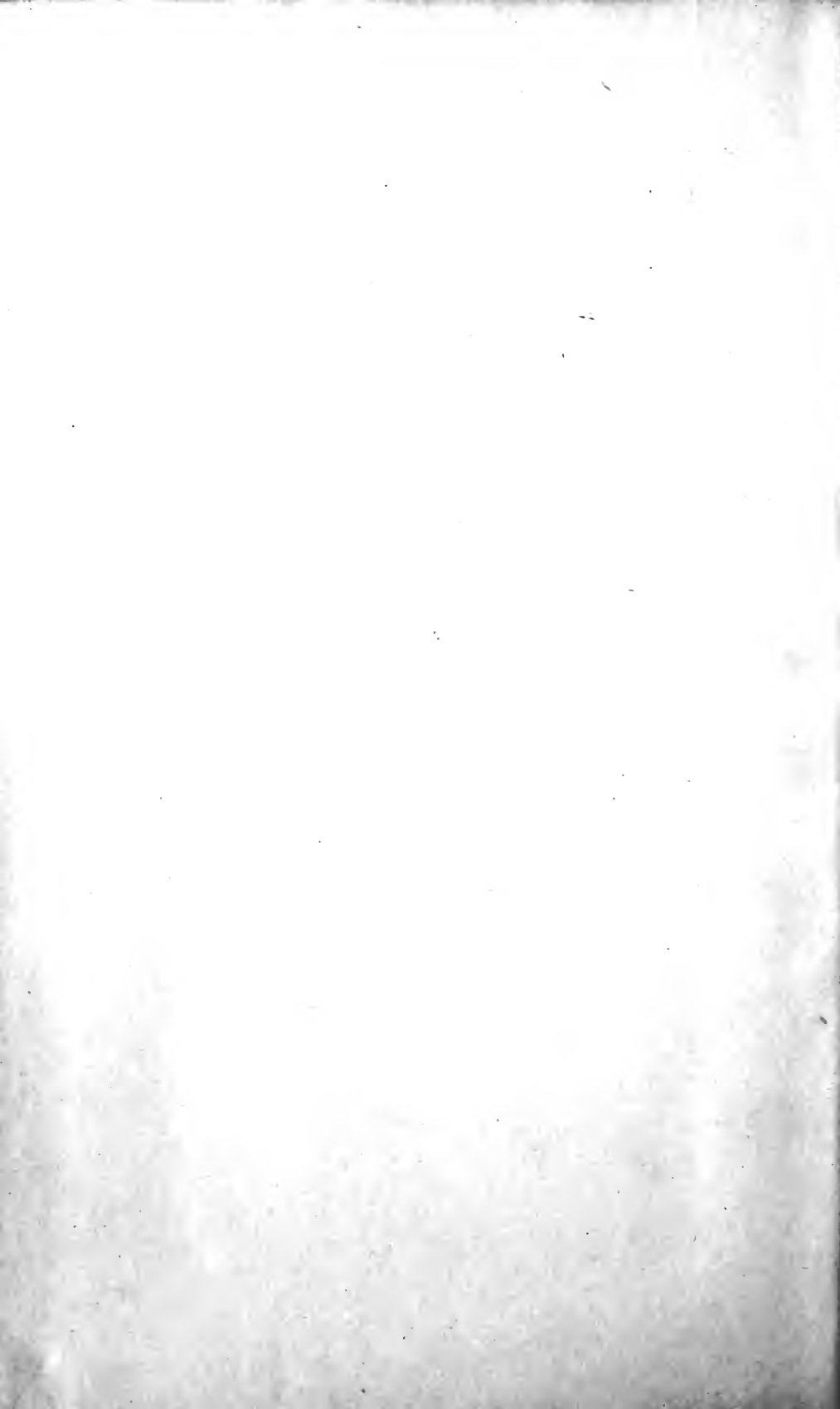
NATURAL GAS INDUSTRY—Continued.

	Page
Production—Continued.	
Rockefeller interests and connected companies (M cubic feet and percent total), by companies, 1934.....	99
1937. By States, M cubic feet, percent of total, average value at wells; comment and table 1.....	36
Reserves:	
Areas comprising reserves which feed interstate transmission....	11-12
Estimates, Caster (1931), Davis (April 1938), Richards (October 1938), National Resources Committee (1939).....	6-7
Regulation: State regulatory efforts and Federal regulatory acts..	84, 215-222
Servicing in delivery:	
Baltimore situation.....	19
California situation.....	21
Dominant factor in scope of industry.....	19-21
Status of industry: population served, number of customers, sales (M cubic feet), by States, as of December 31, 1936.....	211-212
Transmission costs.....	15-16
Wastage.....	80-82
Wells, Ohio, number brought in, 1937; flow.....	37
NATURAL GAS PIPE LINE CO. OF AMERICA: Contract of March 10, 1930; sections 3 and 5, summary.....	31
History and operations of company.....	44-47
NATURAL RESOURCES: Nonraiding exploitation policy.....	30
NORMAN, H. STANLEY: Richest market for natural gas awaits pipe line builders; text.....	209-213
NORTHERN NATURAL GAS CO.: History and operations of company..	47-48
Opposition of dominant interests.....	77-79
OLIVER FARM EQUIPMENT CO.: Branches in United States, number 1937.....	229
PANHANDLE EASTERN PIPE LINE CO.: Opposition of dominant interests.....	71-74
PRICE LEADERSHIP: Agricultural implement and machine industry held by International Harvester Co. and Deere & Co.....	233
PRICE PACKING (PADDING): Defined.....	264
ROCKEFELLER, JOHN D.:	
Intercorporate holdings of voting stock by Rockefeller and Morgan interests in natural gas industry as of January 1, 1939, percentages; chart and tables.....	Facing p. 89, 91, 94
Natural gas companies controlled by Rockefeller interests, production of natural gas (M cubic feet) and percent total, purchases of natural gas (M cubic feet) and percent of total, trunk pipe-line mileage, natural gas transported across State lines, 1934.....	99
Shares and percents of voting stock held by Rockefeller interests in oil companies engaged in natural gas industries, as of January 1, 1939.....	90
SLOAN, ALFRED P., JR.: Message to General Motors dealers, September 29, 1939, and February 27, 1940; extracts.....	265-266, 269
SOUTHERN NATURAL GAS CORPORATION: History and operations of corporation.....	52
STANDARD OIL CO. (NEW JERSEY):	
Intercorporate relationships:	
Stock holding percentages in Interstate Natural Gas Co., Inc., Colorado Interstate Gas Co., Mississippi River Fuel Corporation, Natural Gas Pipe Line of America.....	27
Natural gas pipe line mileage.....	11
TEXAS RAILROAD COMMISSION: Permits to drill granted and denied, completions (gas, oil, and dry), permits to plug, by months, 1936-38..	214
UNITED CORPORATION: Organizers, stock holdings, and stockholders..	25-26
UNITED GAS CORPORATION: Intercorporate relationships, stockholding interest in Mississippi River Fuel Corporation.....	27
UNITED GAS PUBLIC SERVICE CO.: Natural gas operating cost and sales price spread, 1934; average revenue from sales and profit on investment.....	42





1053



This book may be kept
FOURTEEN DAYS
A fine of ^{FIVE}~~two~~ cents a day
will be charged for each day
the book is kept overtime

Due	Due	Due	Due
-----	-----	-----	-----

AP 28 81
~~APR 14 1981~~
RETURNED
RETURNED
RETURNED
NO 20 81
NO 24 81

U. S. Federal trade
commission

338.2
U59r

Reports of the Federal trade
commission on natural gas.

